The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 808.---Vol. XXI.] LONDON, SATURDAY, FEBRUARY 15, 1851. [Price 6d.

MINE MATERIALS, IN THE PARISH OF ST. CLEER, CORNWALL.

MR. P. HAMBLY will SELL, BY AUCTION, on Wednesday, 19th Feb., 1851, at CARADON UNITED MINE, in the parish of ST. CLEER, CORNWALL, an excellent STEAM-ENGINE (45-inch cylinder, 8-feet stroke, equal beam), BOILER, and BALANCE-BOB, capstan and shears, horse-whim and puppet-heads, about 75 fathoms capstan rope, about 90 fathoms whim chains, 16 9-inch pumps, 3 10-inch ditto, 9-inch plunger-pole and case, stuffing-boxes, glands, &c., top doorpiece, H-piece and windbore, 1 8-inch 9-feet working barrel, 1 8-inch clack doorpiece, 18-inch 8-feet windbore, about 25 fathoms of 10-inch mainrods, treble and double blocks, and a number of miscellaneous articles, suitable for mining purposes.

The attention of Mine Agents, Farmers, Mechanics, and the public generally, is invited to the above, the materials being of superior quality, and in good condition.

Refreshments on the table at Twelve, and the sale to commence precisely at One.

Dated Old Park, Liskeard, Feb. 1, 1851. 1

COLLIERY PLANT.

TO BE SOLD, BY AUCTION, on Wednesday, the 5th day of March, 1851, at the POOL COLLIERY, near LLANELLY, Carmarthenshire,—ONE very excellent PUMPING ENGINE, cylinder 36 inches diameter, and 7 feet stroke, with two boilers, about 20 tons. This engine is quite equal to new, and has very superior condensing apparatus.

ONE HIGH-PRESSURE WINDING ENGINE, cylinder 18 inches diameter, and 3 ft. 6 inches stroke, with two boilers and winding gear, complete.

ONE CONDENSING WINDING ENGINE, cylinder 24 inches diameter, 5 ft. 6 in. stroke, complete to the end of the connecting-rod. 2

Also, a considerable quantity of pumps, working barrels, plunger poles, capstans and ropes, waggons, trams, tramplates, wrought-iron rails, smiths' tools, lathe, weighing machine, coking ovens, and many other articles belonging to the said colliery.

Further particulars may be had on application to Mr. W. Thomas, Hall-street, Llanelly

CUMBERLAND.—FREEHOLD ESTATES and ROYALTIES, with suitable FARM BUILDINGS, within 4 miles of WHITEHAVEN, lying in the district of the celebrated WEST CUMBERLAND IRON ORE FIELD. 3

TO BE SOLD, BY PUBLIC AUCTION (separately or together), at the Golden Lion Hotel, Market-place, WHITEHAVEN, on Thursday, the 6th day of March, 1851, at Three o'clock in the afternoon, all those very valuable FREEHOLD ESTATES, called

HOLEBECK AND RATTEN ROW,

Situate in the township of FRIZINGTON, in the county of CUMBERLAND, with good FARM HOUSE and suitable AGRICULTURAL BUILDINGS, containing, by admeasurement, 194 A. 3 R. 13 P., or thereabout, of good ARABLE, MEADOW, and PASTURE LAND, and divided into suitable enclosures, well watered, and the whole (except an outpasture, in the parish of Arlecdon, containing 29 A. 1 R. 0 P.) lying within a ring fence, at present in the occupation of Mr. Thomas Leathes, as tenant from year to year.

HOLEBECK and RATTEN ROW form two distinct Estates, in high cultivation, and contain respectively 38 A. 2 R. 17 P. and 61 A. 3 R. 36 P., and being contiguous, are now occupied as one farm. The market towns of Whitehaven and Egremont are within a short distance, and coal and lime being near at hand, are cheap and abundant. The River Eden skirts the property, and good fishing and shooting are to be had.

These Estates, which are situate in the centre of the Iron Ore District of West Cumberland, are within 4 miles from the town of Whitehaven, and it is presumed they abound in the rich description of ore peculiar to that district.

Extensive IRON MINES are now in FULL OPERATION, and working with great success in the surrounding neighbourhood; the facility for exportation and transit from Whitehaven to the Welsh, Scotch, and other manufactories, having opened out an immense trade, and a large demand for this important mineral. The furnaces of the Whitehaven Hematite Iron Company are within 2 miles from the property.

The tenant will show the premises.

Conditions will be produced at the time and place of sale; and further information may be had by applying to John Spencer, Esq., of Whitehaven; to Messrs. W. and J. Lamb, solicitors, Whitehaven, at whose offices a plan of the estates may be seen; or to Messrs. Gregory, Faulkner, Gregory, and Skirrow, solicitors, 1, Bedford-row, London.

SALE POSTPONED.—The SALE of the FREEHOLD ESTATE of "THE HOLE," in PRIORSDALE, in the parish of ALSTON, in the county of CUMBERLAND, lately advertised for the 6th March next, is POSTPONED to a day to be named in a future advertisement.—Feb. 12, 1851. 4

WHEAL COURTENAY COPPER MINE, ST. COLUMB, CORNWALL.—TO BE DISPOSED OF, BY PRIVATE CONTRACT, or BY TENDER, the whole UNEXPIRED TERM of the ABOVE VALUABLE SETT, with splendid ENGINE, 50-inch cylinder, nearly new; engine boiler-house, complete, all in first-rate working order, with pumps, capstan and shears, and all other materials applicable for mining purposes.

Copper Ore has been raised of excellent quality during the last few months, but in consequence of a misunderstanding among the present proprietors, this valuable property must be parted with.

Should it be taken up by a company, several of the present shareholders have expressed their desire to take new shares, being so fully satisfied of the value of the sett.

All applications for purchase to be addressed to Mr. E. Brooks, 421, Oxford-street.—Captain Samuel Lowry will show the engine and machinery. 5

TO ENGINEERS, MACHINISTS, AND AXLE-TREE MAKERS.—TO BE DISPOSED OF, the BUSINESS, together with the valuable STOCK of MACHINERY, TOOLS, TWO STEAM-ENGINES, and OTHER EFFECTS, the property of the late Mr. William Cleaver, deceased, and carried on at CORNWALL-BUILDINGS, WALCOT-STREET, BATH.

The above business having been successfully carried on for more than 30 years by the late proprietor, whose reputation is known in many and various parts of the United Kingdom, presents one of those favourable opportunities of embarking in a concern which rarely or seldom occurs. The busines is now in full operation.

For further particulars apply to Mr. Edward Watts, wine merchant, Cornwall-buildings, Bath; or to Mr. John Stone, solicitor, 8, Westgate-buildings, Bath. 6

CHEADLE COPPER AND BRASS COMPANY, OAKAMOOR MILLS, CHEADLE, STAFFORDSHIRE.

In consequence of the decease of partners in the CHEADLE COPPER AND BRASS COMPANY, their extensive WORKS at OAKAMOOR are now TO BE SOLD, OR LET ON LEASE, for a term of years.

The WORKS are in FULL OPERATION, and will be continued by the surviving partners until an acceptable offer may enable them to retire. The quality of metals manufactured at these works is well-known in the home and foreign trade, and has secured a most valuable connection.

Further information may be obtained on application to Messrs. Ingleby, Wragge, and Ingleby, solicitors, Birmingham; Latham Hannor, Esq., solicitor, Liverpool; or Rupert Ingleby, Esq., Cheadle, Staffordshire; and the works can only be inspected by an order from either of these parties.

IN CHANCERY.] BANWEN IRON COMPANY.

TO BE LET, OR SOLD, pursuant to an Order made in the matter of the Joint-Stock Companies' Winding-up Acts, 1848 and 1849, and of the Banwen Iron Company, with the approbation of Richard Torin Kindersley, Esq., the Master of the High Court of Chancery, charged with the Winding-up of the said Company, the MESSUAGES, FARMS, LANDS, TENEMENTS, and HEREDITAMENTS, called or known by the names of PANTYDDRAINEN, or BANWEN FARM, TIRBACH, TONPURTHIN, YNISMENEN, and YNISDOMLID FARMS, containing 573 acres, or thereabout, with the MINES and SEAMS of COAL, CULM, and IRONSTONE and IRON MINE MINERALS, FIRE-CLAY, QUARRIES, ROCKS, and STONES, in, upon, or under the said FARMS and PREMISES, hitherto used by the BANWEN IRON COMPANY, and also the WORKS and PLANT of and belonging to the said COMPANY.

The ESTATE is situate in the parish of CADOXTON juxta NEATH, in the county of GLAMORGAN, 13 miles from the town of Neath, and 16½ miles from the port of Swansea. The Swansea Canal is within 4 miles of the property, and a tramway connects it with the works.

The South Wales and Vale of Neath Railways are within a short distance of the estate.

The property is very rich in iron ore, and the land abounds with the finest anthracite coal, which is worked by level.

The works are capable of working and turning out weekly 90 tons of pig-iron. 8

For further particulars and terms apply to Mr. Henry Adron, of No. 10, Coleman-street, London, the official manager of the said company, and of Messrs. Bristow and Tarrant, solicitors, 2, Bond-court, Walbrook, London, and Greenwich, Kent.

The estate and works may be viewed any day between the hours of 10 in the morning and 5 in the afternoon. BRISTOW and TARRANT, Bond-court, Walbrook, Solicitors for Henry Adron, Official Manager.

EXTENSIVE IRON-WORKS AND MINERAL LEASES FOR SALE, BY PRIVATE BARGAIN.—The BLAIR IRON-WORKS, belonging to the AYRSHIRE IRON COMPANY, situated in the parish of DALRY and county of AYR, consisting of TWO BLOWING ENGINES, FIVE BLAST-FURNACES, FOUNDRY, PIT ENGINES, and other requisite utensils for the furnaces and working the minerals, all in working order, besides nearly TWO HUNDRED WORKMEN'S HOUSES.

The extensive MINERAL FIELDS consist of BLACKBAND, IRONSTONE, COAL, LIMESTONE, and FIRE-CLAY, held under long leases, at moderate fixed rents and royalties, all in the immediate neighbourhood of the furnaces; and the works having a connection with the Ayrshire Railway, command great facilities for transit and shipping the produce. There is a large STOCK of IRONSTONE on the ground, which may be had at a valuation, and considerable progress has been made in the

ERECTION OF MALLEABLE IRON-WORKS,

in connection with the furnaces, which may also be had.—The above are well worthy the attention of capitalists and parties in search of mineral fields.

For further information apply to Mr. Brown, 38, St. Vincent-place, Glasgow.

MR. JAMES CROFTS, of 4, KING-STREET, CHEAPSIDE, MINING BROKER, in renewing OFFERS of SERVICE to CAPITALISTS, feels much gratified at the extent of patronage and confidence he has received hitherto, and will continue so to treat the interests of his friends in town and country as to deserve a still more important share of their orders, whether for PURCHASING or SELLING MINING SHARES.—Mr. CROFTS acts exclusively for PRINCIPALS, and will cheerfully give advice on contemplated investments, so far as his knowledge or judgment permits, either personally or by letter.

Numerous sound concerns may be safely invested in, exclusive of *dividend mines*, but the latter with a certainty, *for some years*, of 12½ to 15 per cent. per annum interest.

MR. CROFTS HAS SPECIALLY FOR SALE—

Tincroft (5 shares)	Lewis (10 shares)
South Tamar (40 shares)	Wellington (10 shares) 10
East Tamar (20 shares)	Wheal Tremar (40 shares)
Nap Down Consols	Wheal Vincent (40 shares)
Warleggan Consols (20 shares)	Heiguston Down (20 shares)
Snowdon (40 shares)	Bedford United (15 shares)
Wheal Sophia (5 shares)	Cook's Kitchen (10 shares)
Alfred Consols	Linares (25 shares)
South Tolgus	Bodmin Consols (10 shares)
Kingsett and Bedford (5 shares)	Great Wheal Sheba (5 shares)
West Tolgus (13 shares)	Bwich Consols (50 shares)
Lelant (3 shares)	Alfred Consols (4 shares)
South Trelawny (5 shares)	Lamberoce (8 shares)
West Daniel (2 shares)	

MR. CROFTS issues a PRICE CURRENT of Mining Shares twice each week, which may be had on application.—Dated 4, King-street, Cheapside, Feb. 14, 1851.

MESSRS. FRANCIS & LIGHTOLLER, MINING AGENTS AND CIVIL ENGINEERS.

OFFICE,—No. 34, EXCHANGE ARCADE, MANCHESTER. 11

Messrs. FRANCIS AND LIGHTOLLER, may be CONSULTED by MINING COMPANIES or OTHER PARTIES requiring INSPECTIONS and REPORTS on MINES of every description, or by CAPITALISTS and OTHERS desirous of INVESTING their CAPITAL in MINES or other MINERAL PROPERTIES.

Statistics and other general information connected with Mines and the Mineral Districts given or obtained with the utmost dispatch.

Capt. Absalom Francis having had upwards of 30 years' experience in the practical management of mines, and reported on most of the principal ones in the United Kingdom, applicants may rest assured they will receive full and satisfactory information on matters connected with mining.

Arbitrators and contractors for the erection of every description of mining machinery.

MINING SPECULATIONS.—Mr. EVAN HOPKINS, C.E., F.G.S., &c., CONSULTING MINING ENGINEER—Office, 13, AUSTINFRIARS, LONDON.—Mr. HOPKINS may be consulted daily by Noblemen, Gentlemen, and Capitalists, who have INVESTED, or may wish to INVEST, their CAPITAL in MINES or MINERAL PROPERTY, both Home and Foreign. This office is the only one of the kind in the kingdom, having no dealings in shares—is independent, and unconnected with any party, besides possessing a thorough knowledge of Mining in all its branches, practically as well as theoretically, considered as a matter of business, from many years' experience. To avoid the abuses which are daily occurring, at the expense of distant capitalists and the uninitiated, it is particularly requested that no notice be taken of any verbal representations respecting the prospects of mines, without being duly authenticated by a qualified and disinterested person, whose character for judgment and integrity is founded on past transactions in mining. The object of this office is to protect legitimate mining, to see justice done to the capitalists and property, and to make the necessary examinations in time, not only to ensure that the prospects held out are well founded, but also that the concerns are in the hands of regular men of business—without which no mine, however good it may be, can be rendered remunerative to distant proprietors. 12

*** *All communications to be strictly confidential.*

MR. JAMES STRIDE, formerly of the firm of Bulmer & Stride, Parliamentary Agents, and late of Spring Gardens, MINING SHARE DEALER and AGENT, begs to state that he now TRANSACTS MINING BUSINESS at the *JAMAICA COFFEE-HOUSE, CORNHILL, LONDON.*

Considering the improving value of Mining Property, and the consequent increasing demand for Shares, Mr. Stride deems the present time favourable for offering his advice in respect to that description of property. 13

MR. W. BIRDSEY, MINING AGENT, begs to acquaint his Friends and the Public, that he has OFFICES at No. 1, ST. MICHAEL'S-ALLEY, CORNHILL, and takes this opportunity to thank them for the favours he has hitherto received. From an extensive experience in MINING PROPERTY, in which he has been engaged upwards of 20 years, Mr. Birdsey flatters himself he will be enabled to give much general information—he having personally visited most of the mines in Cornwall.—Mr. BIRDSEY trusts, by strict attention to the interests of those who may honour him with their confidence, to merit a continuance of their orders. 14

NOTICE.—The CHIEF PROPRIETORS of the ROCKS AND TREVERBYN UNITED TIN MINES, GREAT WHEAL BADDERN TIN AND LEAD, PENDARVES AND ST. AUBYN CONSOLS TIN AND COPPER,—and UNITY CONSOLS TIN AND COPPER,—in the county of CORNWALL, Having their OFFICE at No. 51, KING-STREET, MANCHESTER, beg leave to acquaint the Public, that they have

OPENED OFFICES at No. 55, OLD BROAD-STREET, LONDON,

For the purpose of FORMING a METROPOLITAN CONNECTION with SELECT PARTIES, who alone will be received.

For particulars apply to W. W. TERRINGTON, Secretary. No. 55, Old Broad-street, City.—January 30, 1851. 15

CONSOLIDATED COPPER MINES OF COBRE ASSOCIATION.—Notice is hereby given, that a DIVIDEND of THREE POUNDS per share will be PAID to the holders of Certificates in this Company, at the office of the Association, 26, Austinfriars, on and after Tuesday, the 25th day of February inst., between the hours of Eleven and Three o'clock. The proprietors are requested to leave their Certificates at the office, for examination, three clear days before the day of payment. By order of the Court of Directors.

26, Austinfriars, Feb. 7, 1851. WM. LECKIE, Secretary. 16

LEWIS MINES COMPANY.—Notice is hereby given, that a DIVIDEND of TEN SHILLINGS per share will be PAYABLE here on Wednesday, the 26th inst., and succeeding Wednesdays, between the hours of Twelve and Three. Salvador House, Feb. 12, 1851. 17

BODMIN MOOR CONSOLS.—Notice is hereby given, that a MEETING of the adventurers of this Mine will be HELD at the Count-house, on BODMIN MOOR MINE, in the parish of BLISLAND, CORNWALL, on Saturday, the 22d of February inst., at the hour of One o'clock precisely, for auditing accounts, inspecting the works on the mine, and other business. HENRY HORNE, Purser. 11, Austinfriars, Broad-street, London—dated Feb. 13, 1851. 18

WEST POLGOOTH TIN MINING COMPANY.—A GENERAL MEETING of the adventurers will be HELD at 20, St. Helen's-place, Bishopsgate-street, on Thursday, the 27th inst., at Two o'clock precisely, for the purpose of making arrangements for disposing of the mine, or otherwise. 19

15, Old Broad-street. RICHARD EMERSON.

WHEAL MAY MINING COMPANY.—Notice is hereby given, that a SPECIAL GENERAL MEETING of adventurers in this Company will TAKE PLACE on Thursday next, the 20th inst., in the Hall of Commerce, Threadneedle-street, London, for the purpose of adopting proceedings in reference to shares not registered, according to resolutions passed at the last and other general meetings, and on general business.—The chair to be taken at Three o'clock precisely.

The punctual attendance of shareholders is particularly requested. 20

15, Old Broad-street, Feb. 13, 1851. HENRY PEET, Secretary.

WHEAL TOM CONSOLS (Deer Park).—Notice is hereby given, that a MEETING of the adventurers of this Mine will be HELD at the Count-house, on WHEAL TOM MINE, in the parish of STOKE CLIMSLAND, CORNWALL, on Thursday, the 20th of February inst., at the hour of One o'clock precisely, for auding accounts, inspecting the works on the mine, and other business.

HENRY HORNE, Purser.

11, Austinfriars, Broad-street, London—dated Feb. 11, 1851. 21

NOTICE.—GOLD MINING DOMAIN of the Hon. Colonel JOHN CHARLES FREMONT, United States, Senator for California.

The UNDERSIGNED, Sole Representative in Europe of the above-named Senator, under a Power of Attorney, fully legalised, and by the Secretary of State at Washington, witnessed, HEREBY NOTIFIES the BRITISH PUBLIC, that the COMPANY known by the name of the ANGLO-CALIFORNIAN GOLD MINING COMPANY, of Adam-street, Adelphi, has NEVER OBTAINED a LEASE of ANY PORTION whatever of said GOLD DOMAIN from Colonel Frémont, or from any other person on his behalf, as the Undersigned has good cause to believe and know; and having requested said Company to exhibit any "document" or "communication" tending to prove the existence of such a lease, the Company declined so to do: wherefore, as the protector of the rights of Colonel Frémont, he pronounces the following portion of the advertisement of the said Company, in the *Times* newspaper of the 25th January, to be not *founded in fact.*

The said advertisement states that their company has made arrangements to resume the direction of the mining operations on the land leased to this company by Col. Frémont, the Senator from California; and that the directors beg to announce that applications for the remaining shares may be made at the offices above."

DAVID HOFFMAN, 43, Upper Brook-street, Grosvenor-square.

February 12, 1851. 22

WANTED TO PURCHASE,—A SECOND-HAND 40-feet IRON WATER-WHEEL, 4-feet breast, or upwards, with proper pedestals, brasses, &c., complete.—Also, IRON-WORK for SHAFT, bob 6-feet stroke, and brasses—the arms and spoons of wood.—Apply by letter to "A. B.," care of Mr. Saunders, printseller, No. 6, Charing-cross. 23

WANTED,—By an experienced Person, who has resided several years in Spain, a SITUATION as CLERK, or as CLERK and DIALLER, in any MINES ABROAD. The Advertiser is well acquainted with the Spanish language, and has a thorough knowledge of his profession and accounts: would have no objection to making himself generally useful. Most unexceptional references given.

Address (pre-paid) to "A. Z. M.," *Mining Journal* Office, 26, Fleet-street, London. 24

IRON MANUFACTURE.—A Young Man, well acquainted with the Iron Trade, a good Draftsman and Accountant, who has some knowledge of the Iron Manufacture, being desirous of further experience, OFFERS his SERVICES as MANAGER or ASSISTANT in a FORGE and MILL, for a small remuneration at commencement, or would pay a premium for a suitable situation.—Letters free, to "T. S.," Porter's Lodge, Sion College, London. 25

TO BUILDERS, EXCAVATORS, AND OTHERS.—The DIRECTORS of the COMMERCIAL GAS COMPANY will meet at the Company's Offices, Stepney, on Wednesday, the 26th inst., to RECEIVE TENDERS for the EXCAVATION and ERECTION of a BRICK GAS-HOLDER TANK, of 104 ft. in diameter.

Plans and specifications can be seen, and particulars obtained, at the Company's offices, on and after Wednesday, the 19th inst., between the hours of Ten and Two.

Tenders sealed and endorsed, "Tender for Excavation and Erection of Gas-Holder Tank," to be forwarded to the Secretary by Twelve o'clock on Wednesday, the 26th inst.

The Directors do not bind themselves to accept the lowest tender. 26

Stepney, Feb. 10, 1851. By order of the board, G. JAQUES, Sec.

TO PLUMBERS, TIN-PLATE MANUFACTURERS, &c.—SHARES of a VALUABLE PATENT, connected with, and important to, Persons engaged in these and other analogous branches of business, to BE DISPOSED OF. Address "S. D. M." at the office of the *Mining Journal*, 26, Fleet-street, London. 27

CHEMICAL ANALYSIS, &c.—ANALYSIS and ASSAYS, or INVESTIGATIONS of ANY KIND, are UNDERTAKEN at the COLLEGE OF CHEMISTRY, LIVERPOOL.

Professor—Dr. SHERIDAN MUSPRATT, F.R.S.E.

Hon. Assistant—Mr. JOSEPH DANSON, F.C.S. 28

A list of Fees for Analysis, and for Students Working in the Laboratory, may be obtained by writing to Dr. Muspratt, College of Chemistry, Liverpool.

CHARCOAL IRON.—By a recent INVENTION, this IRON can BE MADE in ENGLAND 25 per cent. below present prices. The proprietor offers a PART FOR SALE, to obtain capital to carry it out. Patents and proofs will be forwarded by him.—Address (post-paid) to Mr. Williams, Director of Mines, Philippeville, province of Namur, Belgium. 29

STIRLING'S PATENT ALLOYS.—RAILWAY CARRIAGE BEARINGS, MILL BRASSES, and all DESCRIPTIONS of CASTINGS, are MANUFACTURED by ALFRED BARRETT, Bishopsgate Foundry, Skinner-street,

SOLE LICENSEE FOR LONDON.

BELLS of very superior quality (Stirling's Patent) are also SUPPLIED. 30

SALE OF LEAD ORE, BY TENDER.—A PARCEL of about 2067 cwts. LEAD ORE, lying at the IMPERIAL MINES, at MIES, in BOHEMIA, is TO BE SOLD by the Imperial authorities to the highest bidder. 31

Persons desirous of becoming buyers are requested to make a tender in writing, which must be delivered before noon on the 1st of March, 1851, at the Imperial Mining Office, Przibram, in Bohemia.—The conditions and terms upon which the above Lead Ore will be sold, may be learnt by applying to Messrs. August Faber & Co., 60, Mark-lane, London.

FOR SALE, in One Lot, a fine COLLECTION of MINERALS, consisting of about ONE THOUSAND EIGHT HUNDRED SPECIMENS, in two Cabinets—arranged and catalogued. The Collection is particularly rich in METALLIC SPECIMENS. It is to be seen at the house of the proprietor, Wm. E. Collins Wood, Esq., Keitheck House, near Cupar Angus, Scotland.—For particulars apply to Mr. Alex. Ross, mineral surveyor, 1, Drummond-street, Edinburgh. 32

REGISTRY FOR THE SALE AND PURCHASE OF MINING SHARES.

DURRANT & CO., MINING SHAREBROKERS, 58, LOMBARD-STREET, LONDON, Beg to draw the attention of Capitalists to their REGISTRY for the SALE and PURCHASE of SHARES.

Shares for Disposal.	
Devon Great Consols	West Buller
Carn Brea	Tolgus 33
West Caradon	South Caradon
Trelawny	Great Wheal Sheba
Wheal Mary Ann	Treviskey
Wellingtons	Bedford United

N.B.—Statistical information furnished on British and Foreign Mines.—No CHARGE made for the registrationof shares unless business be transacted.

MINING SHARES FOR SALE.

66 East Balleswidden	55 Wheal Augusta
15 Great Sheba Consols	10 Langford
50 Dartmoor Forest	8 Hennock
7 Copper Bottom	32 Wheal Virgin 34
11 Treville	10 Wheal Trescoll
50 East Trescoll	5 Caradon Vale
5 West Phœnix	25 CartNew Consols

For further particulars, apply to Mr. J. H. MANDEVILLE, 22, Change-alley, Cornhill.

MINING SHARES.—Mr. HENRY VATCHER, EXETER, OFFERS his ADVICE and ASSISTANCE to PARTIES willing to INVEST in the ABOVE SECURITIES. Ten years' residence in Exeter, together with periodical visits to nearly all the Mines in Devon and Cornwall, enables him to become thoroughly acquainted with their respective merits.—Mr. VATCHER has at his command, at all times, practical and experienced agents, so that if any inspection is required, the same can be done without delay. 35

MR. BELL WILLIAMS, MINE BROKER and VIEWER, 16, *CASTLE-STREET, LIVERPOOL.* 36

MR. JOHN DAVIES, MINING SHAREBROKER, *No. 38, TOWER-BUILDINGS, TOWER-GARDEN, LIVERPOOL.* 37

MR. GEORGE CARNE, 28, THREADNEEDLE-STREET, AGENT for the PURCHASE and SALE of SHARES in MINES, RAILWAYS, and JOINT-STOCK COMPANIES.—BUSINESS transacted in the following MINES:—

Devon Consols, Wheal Trelawny, Wheal Mary Ann, Calstock United Mines, Devon and Courtenay, Warieggan Consols, Penzance Consols, Tavy Consols, Crebor, North Wheal Robert, United Mines (Tavistock), Spearne Consols, Borringdon Park.

Railways.—South-Eastern, South Devon, Blackwalls, and Ambergates.

Joint-Stock.—Devon & Cornwall Bank, North British Australian Loan, ditto Preference. 38

MESSRS. BOXALL & CO., MINING SHARE DEALERS, 5, *CROSBY HALL CHAMBERS, BISHOPSGATE-STREET.* 39

MESSRS. TREVARTON AND CO., MINING SHARE DEALERS AND BROKERS, 5, *ST. JAMES'S-STREET, PALL-MALL, LONDON.* 40

MINES.—MOLYNEUX & CO., 6, FINSBURY-PLACE SOUTH, and 6, WEST-STREET, FINSBURY-CIRCUS, have SHARES FOR SALE in DIVIDEND-PAYING and OTHER MINES, which will ensure to capitalists the safest and most unexceptionable investment.—Office hours from Ten to Five o'clock. 41

MINING OFFICES,—48, THREADNEEDLE-STREET, LONDON.—Messrs. THOS. FULLER & CO., beg respectfully to call the attention of CAPITALISTS to MINING, as being the most SAFE and PROFITABLE MEDIUM of INVESTMENT, and are in a position to BUY and SELL in all the DIVIDEND-PAYING MINES, and have on hand several other Mines, which will insure to capitalists the most safe investment, and will pay from 15 to 30 per cent. 42

MINING AGENCY.—The SUBSCRIBERS respectfully intimate, that their old and extensive CONNECTIONS afford them peculiar FACILITIES for EFFECTING SALES or PURCHASES of MINING SHARES with the utmost promptitude, and upon the best possible terms. They also beg it to be distinctly understood, that considering it to be incompatible with their duties as agents to speculate upon their own account, they have determined to adhere exclusively to a legitimate commission business. ESTABLISHED 1839. JAMES S. TRIPP & CO.,

Lombard-street Chambers, No. 33, Clement's-lane, City. 43

RAILWAY AND MINING OFFICES, No. 3 CASTLE-TERRACE, EXETER.—Mr. JOHN JURY, RAILWAY and MINING SHAREBROKER, OFFERS his SERVICES to CAPITALISTS in the PURCHASE or SALE of ANY DESCRIPTION OF PROPERTY; and will be happy to point out a selection of such stock as appear the most eligible, from data that can only be arrived at by those who give an undivided attention to the subject.—Every information afforded (either in person or by letter) to capitalists wishing to invest or exchange their securities, and sales or purchases effected upon the best terms, and at one-half the commission usually charged. 44

RAILWAY ACTS PASSED IN 1850.—From a return of Railway Acts passed in the session of 1850, it appears the number was 84, of which two were for leases, &c.; 14 for extension of time and amendments of Acts; six for deviations, extensions, and other works, for which no new capital was required; three for branches, and for which new capital was required; three for dissolution of company or reduction of capital; and six for additional capital for works previously authorised. The aggregate length of railway authorised was 43⅛ miles, and the length of railway abandoned 55¾ miles, causing a decrease in the mileage previously authorised of 11⅛ miles. The capital authorised to be raised during the above session amounted on shares to 1,920,000*l.*, and on loan to 2,195,632*l.*; and the reduction in the amount of capital authorised previous to 1850 amounted on shares to 646,700*l.*, and on loans to 214,900*l.*, making the total increase of capital 1,273,000*l.*, and of loans 1,980,732*l.*=3,254,032*l.* An Act incorporating the class A shareholders in the St. Andrew's and Quebec Railroad Company was also passed, and the capital authorised 80,000*l.* The total amount of capital authorised in the session of 1850 to be raised for railway purposes was 333,032*l.*

MAILS ON RAILWAYS.—It appears, from a return just issued, that the amount paid by the Post Office to the railway companies for the conveyance of mails during the year 1848 was 818,584*l.*, and during 1849, 253,585*l.*, and for other services, 82*l.* for each year.

RAILWAY ACCIDENTS.—It appears from returns presented to Parliament, and now printed, that in the half-year ending 30th June last there were 93 persons killed by railway accidents, and 68 injured, of which number three passengers were killed and 33 injured from causes beyond their own control; seven passengers were killed, and three injured, owing to their own misconduct or want of caution; 25 servants of companies were killed, and 17 injured, from causes beyond their own control; 29 servants of companies or contractors were killed, and 10 injured, owing to their own misconduct or want of caution; and 26 trespassers were killed, and five injured, by crossing or walking on railways. There were three suicides. The number of passengers conveyed in the half-year amounted to 31,766,503. The length of railway open on 31st Dec., 1849, was 6032 miles; and on 30th June last the length had extended to 6308 miles, showing an increase of 276 miles in the half-year.

DIED,—on the 9th inst., at the residence of his brother, John Martin, K.L. Lindsey-house, Chelsea, Mr. William Martin, aged 82. He was the inventor of the high-level bridge, of the circular dial plate weighing-machine (for which he was rewarded with the Society of Arts' silver Isis medal, and a purse of ten guineas), and of several other useful and scientific mechanical works.

SEWERAGE OF LONDON.—The ATTENTION of the COMMISSIONERS appointed to determine upon the MOST EFFICIENT MATERIAL for the CONSTRUCTION of the SEWERS OF LONDON, is particularly directed to the ASPHALTE OF SEYSSEL, which more than any other material is applicable to the CONSTRUCTING and INTERNAL COATING of BRICK CULVERTS and OTHER CHANNELS for DRAINAGE.

The experiments made by the Royal Artillery on the embrasures of Plymouth Citadel, constructed of Seyssel Asphalte Brickwork, under the orders of the Hon. Board of Ordnance, have fully proved the superiority, adhesiveness, and strength of Seyssel Asphalte over all other cementitious compositions. A printed account of these experiments can be had on application to I. FARRELL, Secretary,

Seyssel Asphalte Company—"Claridge's Patent"—Established 1838.

Note.—The application of the Asphalte of Seyssel is specially recommended by the Commissioners on the Fine Arts for covering the ground line of brickwork in marshy situations, and it has been suggested that it would be peculiarly applicable for covering the *areas* of closed *grave yards*, and for the construction of *catacombs*.

COUGHS, ASTHMA, AND INCIPIENT CONSUMPTION are EFFECTUALLY CURED.—KEATINGS'S COUGH LOZENGES have been proved by long experience to be equally efficacious and powerful in those severer forms of pulmonic affections—asthma, incipient consumption, chronic bronchitis, and spasmodic cough—as in the milder, but often not less troublesome disorders of the throat and chest, winter cough, hoarseness, difficulty of breathing, and irritation of the throat, &c. Their entire freedom from all deleterious ingredients and opiates, whilst it renders Keating's Cough Lozenges a safe remedy for the most delicate female or youngest child, has caused them to be held in the highest esteem by public speakers, clergymen, and professional singers; but, perhaps, the high approval which is bestowed upon these lozenges by some of the most eminent of the faculty, is the best and most convincing guarantee of their safety, efficacy, and purity.—Prepared and sold in boxes, 1s. 1½d., and tins, 2s. 9d., 4s. 6d., and 10s. 6d. each, by Thomas Keating, Chemist, &c., No. 79, St. Paul's Churchyard, London. Sold retail by all druggists, and patent medicine vendors in the kingdom.

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IMPORTANT TESTIMONIAL.

Church-street, Folkestone, Nov. 22d, 1848.

SIR,—Having been troubled with a very bad cough for the last eight months, I applied to Mr. Hammon, chemist of this town, for some relief; he recommended me your "Cough Lozenges," which I am happy to say cured me in a week. I beg most cordially to recommend them, and request you will not hesitate to make this letter public; such a valuable remedy cannot be too highly recommended. JOHN HILL, Bart.

ON NERVOUS AND GENERATIVE DISEASES.

New Edition, illustrated with 45 coloured Engravings, and containing the NEWLY-DISCOVERED PREVENTIVE LOTION.

Just published, the 54th thousand, price 2s. 6d., in a sealed envelope, or sent by the author, post-paid, for 40 postage stamps.

MANHOOD: the CAUSES of its PREMATURE DECLINE, with plain directions for its perfect restoration. A Medical Review of every form, cause, and cure of nervous debility, impotency, loss of mental and physical capacity, whether resulting from youthful abuse, the follies of maturity, the effects of climate, or infection, &c., addressed to the sufferer in youth, manhood, and old age; with the author's observations on marriage, its duties, and disqualifications; the prevention and cure of syphilis, spermatorrhœa, and other urino-genital diseases, as adopted by Deslandes, Lallemand, and Ricord, surgeons to the Hospital Venerien, Paris.

By J. L. CURTIS, Surgeon, 15, Albermarle-street, Piccadilly, London.

With this new and enlarged edition of MANHOOD, which is now translated into five languages, will be given the author's prescription of a disinfecting lotion for the prevention of all secret disorders, which, by its extraordinary powers in decomposing the virus, as attested by the opinions of Lallemand, and the most eminent surgeons in Europe, will go far to prevent the ravages which for ages these diseases have entailed upon mankind.—At home for consultation daily, from Ten till Three, and Six to Eight o'clock.

"We feel no hesitation in saying, that there is no member of society by whom the book will not be found useful—whether such person hold the relation of a parent, preceptor, or a clergyman."—*Sun*, Evening Paper.

Published by the author; sold also in sealed envelopes, by Strange, 21, Paternoster-row; Hannay, 63, Oxford-street; Mann, 39, Cornhill, London; Heywood, Oldham-street, and Armstrong, 23, Bond-street, Manchester; Howell, 6, Church-street, Liverpool; Campbell, chemist, 136, Argyle-street, Glasgow; Robinson, 11, Greenside-street, Edinburgh; Berry and Co., Capel-street, Dublin; and by all booksellers and chemists in the United Kingdom.

DR. LA'MERT ON THE SECRET INFIRMITIES OF YOUTH AND MATURITY.

With 40 coloured engravings on steel.

48

Just published, and may be had in French or English, in a sealed envelope, 2s. 6d.; or post-free, from the author, for forty-two stamps.

SELF-PRESERVATION: A Medical Treatise, on the Physiology of Marriage, and on the Secret Infirmities and Disorders of Youth and Maturity, usually acquired at an early period of life, whichdebilitate the physical and mental powers, diminish and enfeeble the natural feelings, and exhaust the vital energies of Manhood; with Practical Observations on the Treatment of Nervous Debility, whether arising from these causes, close study, or the influence of tropical climates; local and constitutional weakness, syphilis, stricture, and all diseases and devangements resulting from indiscretion; with 40 coloured engravings, illustrating the Anatomy, Physiology, and Diseases of the Reproductive Organs, explaining their various structures, uses, and functions, and the injuries that are produced in them by solitary habits, excesses, and infection.

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Doctor of Medicine, Matriculated Member of the University of Edinburgh, Licentiate of Apothecaries' Hall, London, Hon. Member of the London Hospital Medical Society, &c.

This work contains an accurate and complete account of the anatomy and physiology of the reproductive organs, and of their relative conditions in health and disease. In it are clearly explained the cause and effects of injurious habits and excesses, and their action on the human frame in inducing physical disqualifications, and thus laying the foundation for numerous and fearful diseases. Dr. La'Mert has taken the highest medical honours, as his diplomas testify, and the great extent of his practice for many years is a guarantee for his professional experience, which has reference almost solely to the treatment of these diseases.

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Illustrated by 26 Anatomical Coloured Engravings on Steel, On Physical Disqualifications Generative Incapacity, and Impediments to Marriage. A new and improved Edition enlarged to 196 pages, price 2s. 6d.; by post, direct from the establishment, 3s. 6d. in postage stamps.

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THE CORDIAL BALM OF SYRIACUM is exclusively employed in treating nervous and sexual debility, impotence, &c., 11s. and 33s. per bottle.—THE CONCENTRATED DETERSIVE ESSENCE, an anti-syphilitic remedy, for purifying the blood in cases of infection, secondary symptoms, eruptions, and the abuse of mercury, 11s. and 33s. per bottle.—PERRY'S PURIFYING SPECIFIC PILLS, 2s. 9d., 4s. 6d., and 11s. per box—a certain remedy for gonorrhœa, gleet, stricture, and chronic inflammation of the bladder.—Consultation fee, if by letter, £1. A full description of the case is necessary, stating age, habits, and position in society. £5 packets, with advice, to be had at the establishment only, by which the fee, £1, is saved.—Messrs. Perry, surgeons, are in attendance daily at 19, Berners-street, from 11 to 2, and 5 to 8; on Sundays, from 11 to 1.

Sold by Sutton and Co., 10, Bow Churchyard; W. Edwards, 67, St. Paul's Churchyard; Barclay and Sons, Farringdon-street; Butler, 4, Cheapside; R. Johnston, 63, Cornhill; L. Hill, New Cross; W. B. Jones, chemist, Kingston; J. W. Tanner, Egham; S. Smith, Windsor; J. B. Shillock, Bromley; T. Riches, London-street, Greenwich; T. Parkes, Woolwich; Ede and Co., Dorking; and John Thurlby, High street, Romford—of whom may be had the *Silent Friend*.

Transactions of Scientific Bodies.

MEETINGS DURING THE ENSUING WEEK.

THIS DAY	Asiatic—8, New Burlington-street	2 P.M.
MONDAY	Statistical, 12, St. James's-square	8 P.M.
	Chemical—112, Strand	8 P.M.
TUESDAY	Linnæan—Soho-square	8 P.M.
	Horticultural—21, Regent-street	2 P.M.
	Civil Engineers—25, Great George-street	8 P.M.
WEDNESDAY	Society of Arts—Adelphi	8 P.M.
THURSDAY	Royal—Somerset-house	8½ P.M.
	Antiquaries—Somerset-house	8 P.M.
FRIDAY	Geological—Somerset-house (anniversary)	1 P.M.
	Royal Institution—Albemarle-street	8½ P.M.
	Philological—London Library, 12, St. James's-square	8 P.M.
SATURDAY	Medical—33, George-street, Hanover-square	8 P.M.
	Royal Botanic—Inner Circle, Regent's-park	3½ P.M.

GEOLOGICAL SOCIETY.

February 5.—Sir CHARLES LYELL (president), in the chair.

James Inglis, Esq., M.D., was elected a fellow.—The following communication was read:—

On the Silurian Rocks of the South of Scotland, and their probable Connection with the Crystalline Rocks of the Highlands. By Sir RODERICK IMPEY MURCHISON, V.P.G.S., &c.—Having explained, in an introduction, the extent to which rocks of Silurian age had been recognised in the south of Scotland by other geologists, the author first described a tract of Ayrshire, near Girvan, where they prevailed, and to which Professor Sedgwick had especially drawn attention at the last meeting of the British Association. He also adverted to the fortunate coincidence of the geological name, "Silurian," with an historical fact recited by Hector Boetius, that the tracts of Ayr and Galloway, &c., in which the organic remains of primeval life occur, are those which were inhabited by a portion of the brave ancient people, the *Silures*, "so noisome to the Romans." By the help of a coloured map and sections, it was indicated, that in the country between the north bank of the Girvan Water and the south bank of the Stinchar River, the strata, consisting (in ascending order) of schists and limestones, conglomerates and shelly sandstones, orthoceratite and graptolite flagstones, are thrown into rapid undulations by several anticlinals, and also much fractured and disturbed by the eruption of igneous rocks, including serpentine, hypersthene or diallage, greenstone, &c. The organic remains of the lowest formation, occurring in limestones and schists, are assimilated to those of Llandeilo or Bala, and are considered to be of the same age as those of the limestones of Peebleshire, described by Professor James Nicol, who was the companion of Sir Roderick Murchison in his last tour in the south of Scotland, and to whom the greatest obligations are expressed for having laboured zealously with him. Coarse conglomerates and sandstones, loaded with typical fossil shells, succeed, which, on the whole, have the aspect and specific characters of the Caradoc group of England and Wales; although the author does not profess to speak of these, excepting as true "Lower Silurian," in the sense first expressed by him when he wrote the "Silurian System." From the increase of certain forms, which pertain rather to a younger age, Sir Roderick is disposed to think, although the sections are not clear, that the schistoze strata, laden with the well-known Dudley fossil, *Calymene Blumenbachii*, and the flagstones, containing *Orthoceratites*, *Cyrtoceras* or *Phragmoceras*, with *Graptolites*, are overlying, and are probably referable to the base of the Upper Silurian rocks. He considers that they occupy a trough in the chief undulation of the tract. Transverse sections of Dumfriesshire showed the great changes of mineral structure, as strata of the same age passed from one district to another; and it was stated that the anticlinal and synclinal folds were very numerous, sharp, and so highly complicated, that as yet it has been found impossible to decide upon the real geological axis of the country. The oldest zone of former life (the lowest Silurian of Scandinavia, Bohemia, and a small tract of North Wales) has not been recognised in Scotland; but the author believes, that after countless folds and repetitions, and after exhibiting a great variety of mineral character, the mass of the Lower Silurian rocks is overlaid on the south, and notably in Kirkcudbright, by schists of the age of the Wenlock shale, or lower part of the Upper Silurian. The Ludlow rocks, or uppermost Silurian, as well as the lower members of the old red sandstone, being absent, it is suggested that the south of Scotland must have been raised into land at a very early period. In the second part of the memoir, however, to be read at an ensuing meeting, an endeavour will be made to show that the true equivalents of the Ludlow rocks may be found on the southern edge of the Highlands, and that the base of the system may also there exist, although in a metamorphic condition.

LIVERPOOL COLLEGE OF CHEMISTRY.—The fifth session of this highly popular and valuable institution has just terminated, and we are happy to find it has been more prosperous than any preceeding one. The establishment of this school is a striking evidence of what perseverance will effect, and an incitement to similar enterprise. On making known his intentions, many of Dr. Muspratt's scientific and literary friends prognosticated an entire failure; they did not think Liverpool adapted for such an institution; some recommended Manchester, others Glasgow; but Dr. Muspratt knew that the former had been tried, and the attempt failed: he, therefore, persevered, and, by indomitable industry, has, at his own expense, raised a laboratory as complete in all its parts as any in the kingdom, and known and appreciated throughout Europe. Dr. Muspratt is highly successful in his method of teaching, and has pupils from all parts of the United Kingdom. During the past four months he has published much for the advancement of the science; and, strange to say, it has been left to an Englishman to analyse the waters of Baden Baden: this the Doctor has done, and read the result of his investigations before the Royal Society of Edinburgh.

ON THE LAWS OF COLOUR.—An interesting paper was read at the Society of Arts, on Wednesday evening, by Prof. Calvert, of Manchester, "On the Laws of Colour, and their Application in the Arts and Manufactures, particularly with regard to the Effective Arrangements of Coloured Goods and Fabrics." The lecturer assumed the theory of there existing but three primitive colours—blue, red, and yellow. The others were merely produced by contact, and this idea was very ingeniously supported throughout the lecture by the exhibition of variously-coloured manufactured goods. The optical illusions, which went to establish the theory of the existence of seven colours, were demonstrated by the aid of these manufactured goods, as was also the absorption of light as the productive principle of colour. In contending against the laws of light, previously laid down by Sir Isaac Newton, that in addition to the acknowledged prismatic colours four existed beside, the lecturer would do it deferentially, not forgetting the homage due to the genius and memory of "England's greatest philosopher." Respecting the arrangement of the different cotton and silk manufactures, which will be exhibited in May next at the Crystal Palace, he felt it his duty to impress upon exhibitors the necessity of giving their attention particularly to the disposition of their different articles—that opposite tones or tints may not, by contact, detract any share of their adopted brilliancy. Pointed illustrations, bearing out the propriety of this suggestion, were aptly produced—the lecturer directing the attention of his auditory to rich diversely-tinted fabrics that surrounded the room, which, being placed in contact, appeared in opposite characters and colours. For instance, on being steadfastly looked upon a few seconds, a yellow in close proximity with a black-coloured fabric amalgamated itself with the latter, producing a combination of tints anything but elegant; but on an assimilating tone of colour, such as purple-black, being annexed to it, its brilliancy was heightened, and its beauty unimpaired.

THE PATENT LAWS.—A deputation consisting of Mr. Westhead, M.P., Mr. Brotherton M.P., Mr. Scholefield, M.P., Mr. Brokedon (London), Mr. Stirling (London), Mr. R. H. Wyatt (London), Mr. Cowper (London), Mr. Woodcroft (London), Mr. E. Lowe (London), Mr. Curtis, Dr. Ritterbandt, and Mr. Roberts (from the Manchester committee), Mr. Prosser (Birmingham), and Mr. E. Woods (Liverpool), had an interview with the Right Hon. H. Labouchere at the Board of Trade on Wednesday, on the subject of the Patent Laws Amendment.

INVENTORS' AID ASSOCIATION.—In our advertising columns will be found a notice of the prospectus of an association formed for the purpose of affording substantial assistance to inventors, who are without the means of obtaining a patent, and who are too often robbed of their interest in the production of their own talent and perseverance. It is proposed to raise a capital of 50,000*l.*, in shares of 10*l.* each, for the purpose of advancing money to needy inventors; every possible security is held out that the disclosure of the secret shall not, in the slightest degree, effect the discloser's right, should the invention be rejected, and when accepted a fair share of the patent rights will be secured to the inventor, and the residue become the property of the association. The applicants for aid must either be shareholders, or come recommended by a holder of not less than five shares. It is probable that the Patent Laws will shortly undergo a complete revision, but under any circumstances, with good management, such an association is likely to prosper, and greatly benefit the working artisan—taking from the rights of none, and returning a good profit on the capital employed.

REMARKABLE FINE SPECIMEN OF GRANITE.—The specimen of granite quarried by the Cheesewring Granite Company at their quarries, near Liskeard, to be exhibited at the Great Industrial Exhibition of 1851, has been sent off lately from the quarries—it is to form a fluted Ionic column to stand 30 feet high, the shaft being cut out of one solid block of the finest quality granite. The whole to be elaborately worked, and will exhibit a specimen of Cornish workmanship as well as produce.—*West of England Conservative.*

HOLLOWAY'S PILLS FOR THE CURE OF LIVER COMPLAINTS, INDIGESTION, AND DISORDERS OF THE STOMACH.—Mr. Richard Haynes, of H.M. Dock-yard, Plymouth, had not had the enjoyment of a day's good health for several years, constantly suffering from indigestion and liver complaint. He had the best medical advice, both from army and native surgeons, but the disease yielded not to their treatment, and various remedies were tried with a like result. As a last resource, he began to use Holloway's Pills, and this fine medicine has so strengthened the tone of his stomach and invigorated his constitution, that he is perfectly cured, and now enjoys the best of health.—Sold by all druggists, and at Professor Holloway' establishment, 244, Strand, London.

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ON SOME OF THE USES OF PYROGEN IN NATURE—No. VII.

BY JOHN JOSEPH LAKE.

It is now known that a ray of light may be magnetized and electrified. The fundamental experiment revealing this important fact is as follows:—A ray of light is first polarized in the horizontal plane by reflection, from a glass mirror, and then made to pass for a certain space through glass composed of silicated borate of lead. Emerging from this, it is viewed through a Nichols' eye-piece, capable of revolving on a horizontal axis, so as to interrupt the ray, or allow it to be transmitted alternately in the different phases of its revolution. The glass, or diamagnetic, is placed between the two poles of a powerful electro-magnet, so arranged that the line of magnetic force resulting from their combined action shall coincide with, or differ but little from, the course of the ray in its passage through the glass. The eye-piece being turned so as to render the ray invisible to an observer looking through it before the electric current is established, the ray becomes visible as soon as the circuit is completed, and the magnetic force in operation, but on breaking the circuit the ray instantly becomes invisible. Further investigation has shown that the electro-magnetic action causes the polarized ray to rotate in the same direction as the currents of positive electricity are circulating in the helices, or coils, composing the electro-magnet, and also in that of the hypothetical currents which, according to Ampere's theory, circulate in the substance of a steel magnet (Faraday). Again, it is granted that chemical action is due to the electric matter, and in some cases we have seen that chemical action is impeded, and even altogether prevented, by the presence of light. We further find that acid compounds of silver, as the nitrate, become oxidated by exposure to light, an effect analagous to that referred to in No. VI of these papers of the dispersive power of the solar rays, by which the union of carbon and oxygen is prevented, and owing to which vegetation discharges carbonic acid by night, and oxygen only by day; for the effects observed in the acid compounds referred to is a reduction from a higher to a lower state of oxygenation. Thus, light causes chemical action in some instances, and prevents its progress in others, and both by the operation of the same principle or law—the expulsion or release of the electric fluid. There is also known to be a remarkable affinity or attraction between oxygen and pyrogen, as I have shown in the *Polytechnic Review* for 1845, p. 93, 262 (see also *Supplement to Penny Cyclopædia*, articles "Ozone," and "Pyrogen"), and that pyrogen is the cause of oxidation and acidification.

Further, light is developed during the passage of pyrogen through the air, and the degree of light developed is proportional to the density of the medium through which the fluid passes. A spark taken in an atmosphere of carbonic acid is white and vivid, but in hydrogen faint and red, and the former is 22 times heavier than the latter. The circulation of the fluid which is known to take place in the atmosphere must produce light, hence the self-luminosity of the Sun, Venus, and our earth. The great intensity of the light of the sun is due to the greater density of its atmosphere. (See *Mining Journal*, 1849, p. 183).

From the above the following conclusions are to be drawn:—1. That the electric matter is the source of light in the sun and heavenly bodies.—2. That the electric matter will cause a motion in light.—3. That light will cause motion in the electric matter.—4. That the effect of this is the expulsion of the fluid, and destruction of higher degrees of chemical affinity.—5. That pyrogen attracts oxygen. With this foundation, there does not appear to be any difficulty in recognizing at once the identity of light and pyrogen. For, in the first instance, the electric matter is shown to produce light; in the second, we see that the light produced is subject to the influence of the fluid; in the third, that the fluid is equally subject to the influence of light; the fourth and fifth show an identity in the cause of action, for the pyrogen is the cause of attraction with the oxygen, and when the former is dispersed the latter is released, because oxygen can only combine with other substances through the influence of pyrogen, catalytic, or otherwise, as the case may be. Therefore, when the pyrogen of a substance is disturbed, chemical action takes place. When burning coal or wood is exposed, as in a common fire, to the sun, the continued oxygenation of the carbon is prevented by the dispersion of the electric matter by light; and, by disturbing the electric matter by the application of a sufficient amount of heat to carbonaceous matter, as coal, chemical action is generated in another way, during the progress of which a second action may be observed; the carbonic acid that is generated in the first instance, on passing through the central parts of more intense heat, loses a portion of its oxygen by the continued operation of the same principle—the loss of pyrogen—leaving carbonic oxide. Again, potassium, sodium, and the allied metals, are only to be obtained from their oxides by expelling more or less of pyrogen from them, by strong galvanic action or intense heat, on the application of which the pyrogen is driven off, and the source of affinity being destroyed, the oxygen can be no longer held by the metallic base. From the above, it is evident that the light of the heavenly bodies is due to pyrogen; that it is, in reality, the electric matter rendered visible during its passage through a bad conducting medium.

LOCOMOTIVE ENGINES.—M. E. G. Leroy, of Paris, has just patented some improvements in locomotive engines, and in the means and apparatus to be employed for generating and condensing the steam to be employed therein. Mr. Leroy's present improvements in generating steam in locomotive engines consist in employing for that purpose gases of the ordinary description used for lighting. The construction of the boiler is thus necessarily altered—burners being substituted for the furnaces. The patentee describes three methods of supplying gas to the burners. The first of these is, to have a main pipe, with branches from the works (which are to be erected in convenient situations near the line), laid down the whole length of each line of rails. This pipe has a slit or opening at the top, which is closed by a flexible continuous valve. The construction of the valve may be varied, and it may consist of a tube of flexible material slightly distended by compressed air, and enclosed within, and closely fitting a perforated tube, which has a corresponding longitudinal opening, and is furnished with flanges, by which it is secured inside the main pipe, immediately below the longitudinal opening; or it may be simply a flexible lip-valve, such as was invented by Hallette, of Arras; or it may be formed of two curved pieces of prepared leather or other material, kept in contact by the internal pressure of the gas. The feed pide of the engine, situated in the bottom of the smoke box, is composed of two parts, with a telescope joint, the lower portion being pressed against the surface of the main pipe by spiral springs. There is also fitted to the lower part a roller, which, when the engine is in motion, acts on the flexible valve, and, by depressing it, allows the gas in the main to ascend into the feed pipe of the engine, whence it passes to the burners. Another method of supplying gas is, to have attached to the tender, a reservoir capable of sustaining the pressure of the gas and of containing a sufficient quantity to supply the burners from station to station. At every station, or as often as requisite, there would be cocks to the main for supplying the tender. The third method consists in combining these two systems, and supplying the tender at intervals from the main pipe, parts of which only would thus require to be furnished with a flexible valve. For condensing steam, it is proposed to employ a tube similar to that of the atmospheric railway, but of smaller dimensions, into which the waste pipe of the engine should lead, and thus effect the desired object. The water of condensation would require to be occasionally drawn off.—*Claims.*—1. Generating steam in locomotive engines by the combustion of gases generated or produced in suitable apparatus detached from the engine, and supplied to the engine by pipes or otherwise.—2. The method described of condensing steam.—*Mechanics' Magazine.*

IMPORTANT TO IRONMASTERS.—We believe the following to be without a parallel in the annals of furnace management. Some three months ago, owing to certain difficulties of a pecuniary nature, in which the proprietor of the Cefn Cwsc Iron Works had become involved, the blast was taken off the furnace—the only one then in use—without resorting to the usual practice of "blowing out." In this state the furnace continued for the space of 66 days, or nearly 10 weeks, until the contents, amounting to some 60 tons of materials, had settled down into one solid lump, which, to all appearance, had grown cold. It should also be mentioned that at the time the furnace stopped working the iron in the "hearth" was several inches above the "dam-plate," and during the last three weeks of this extraordinary slumber, the "breast" and "arch" were wide open, and the general opinion appeared to be, that the furnace would have to be entirely taken down and rebuilt, at a cost of several hundred pounds. It was resolved, however, that a trial should be made, and that the blast should be put on, though but faint hopes were entertained that such a plan would prove successful, from the difficulty that existed of introducing a sufficient quantity of combustible matter to reduce the solid mass within the furnace. The task, not inappropriately termed by some a "forlorn hope," was undertaken by Mr. J. R. Tanner, who, with a few picked men, commenced operations about nine days since, and in three more days the blast was on, and at the time we write, the liquid iron runs freely from the furnace. Mr. Tanner appears to be one of those who "laugh at impossibilities," and who, having been some years in the employment of the Messrs. Crawshay, would seem to have adopted the motto of those leviathan ironmasters—"Perseverance." He is a young man of great promise, and is probably destined to occupy a prominent position in connection with the manufacture of iron. In addition to his other acquirements, Mr. Tanner has, for some years past, devoted his leisure hours to the study of analytical chemistry, in which interesting branch of science he has already made considerable proficiency.—*Swansea Herald.*

Original Correspondence.

MINES AND MINING.—No. I.

In the article which appeared in your Journal of the 1st. inst. under this head, by Mr. Hopkins, there are some remarks on the dressing of tin ore. Though I agree with him on the importance of the question, yet I think he gives but little information, except that he made a losing tin mine pay good profits, by the adoption of his plan in the dressing department. Having had some experience in tin matters, I may say there are points of considerable importance that must be taken into consideration, besides the dressing of the ore, to make a mine profitable—viz.: the "quality and size of the lode," "the facilities for its working," and last, not least, "the market value of the produce;" all these being favourable, it is difficult to think that any manager of Cornish mines can be so blunt as to fail in the dressing department. I am not so partial to old plans as to suppose there may not be some improvements made; nevertheless, though the Cornish tin dresser may not be able to describe his plan of proceeding philosophically, yet the general practice, as far as I have seen, is based on sound principles. I now give a short extract from my *Parochial History of Mining in Devon and East Cornwall*, which is preparing for the press:—

TIN DRESSING.—This important manipulation is carried on generally upon the philosophical principles of *specific gravity*, after a division and sizing of the produce of the lode for the stamps; and though the tin dresser may be ignorant of the terms, yet his practice is mostly based on sound principles.

The first point to be attended to is the careful separation of the "work" after it is broken in the mine (even underground), and it is always a good plan, if there are "rich leaders," or "scrabs" of rich work, for the tinner to make two parcels—"best work" and "coarse work"—and also to stamp them separately. On this head, too often incompetent persons are employed in the "spalling" and picking the ore, and great expense and waste is thereby incurred. The next point is the size of the stamps' grate; and this, again, requires judgment, as some ore will do best for one size, whilst another ore must be forced through a finer grate. After it is through the grate (for the greatest number of mines), a long tye is the cheapest, and a very expeditious mode to adopt; but there are instances in which the old stamps' pit is indispensable for safe keeping, and making most of the work. In both cases, the tin being the heaviest article, from its specific gravity, it is generally found a short distance from the grate in its richest character. No great ingenuity is requisite to clean the ore in the head of the pit or tye; but the skill and quality of the dresser is most required, to have as little tin as possible in the "craze" and "slimes." On the mode of grinding or crushing tin ore some difference of sentiment prevails.

Feb. 11. JOHN PAULL.

ON THE ORIGIN OF ORES IN LODES.

SIR,—Mr. Rowlandson has declined to bear out his own theory, or answer my questions as to the origin of ore in veins, and turns to matters foreign to the subject, either from want of knowledge, or a wish to retain it for selfish views; in either case it can be but a waste of time to follow him. I have a thought, some future day, to publish my views on mining through the medium of your Journal, and shall then touch on the origin of ores in lodes, which will give Mr. Rowlandson and others room to reply, when I hope to be met in a more friendly discussion than Mr. Rowlandson now appears inclined to enter on. I am sure Mr. Rowlandson's good sense must tell him that persons who get out of temper about these things only show that they have engaged in a task that they are not conversant with, or capable of carrying out. He should remember that no man has risen to the point of perfection; it is these discussions that add to their store of useful knowledge. I am confident Mr. Rowlandson will be so aided by these (though not over friendly) discussions, as to be enabled to benefit by them through all his future mining pursuits, and will be ready to tell me some day that it is the most valuable lesson he ever learned.

Before I conclude this subject, I would remark to him, that I am quite at variance with his theory of ores being thrown up into lodes from once melting masses, and am inclined to believe that thousands of lodes, which once abounded in ores, now scarcely contain a particle, and others that once contained little or none have now an abundance. It is like every other thing in Nature—stationary for no length of time; every lode we work on is either progressing or decomposing, by Nature's laws. These are the things for Mr. Rowlandson to study, to enable him to meet me, or some more able correspondent, and tell, from the appearance of lodes, when is the due time for harvesting their produce. The lowest grade of agriculturists can tell when to harvest the produce of the field, and the woodman when the tree is arrived to perfection; and surely a well-educated man, as Mr. Rowlandson appears to be, skilled in metallurgy and geology, should tell us when a lode has arrived at that perfection—if going backwards, and is as a rotten tree, it will be useless to work it; and, if a mere sapling, what a pity to destroy it. I may add, that I shall be at all times willing to be set right by Mr. Rowlandson in my apparently wild theory, providing he couches his correspondence in an agreeable spirit.

Wiveliscombe, Feb. 10. N. ENNOR.

WHEAL BROTHERS AND SILVER VALLEY.

SIR,—I do not intend to vindicate the manner in which these mines have lately been brought before the public, but I do desire to call the attention of yourself and the public to their probable value, apart from all feelings arising from the conduct of individuals who have been heretofore, or are at present, connected with them. In order to do this, I must glance at the former workings,—and first of Wheal Brothers. When this mine was originally opened by the Messrs. Williams as Wheal Duchy, neither the proprietors, their captains, nor their miners knew much, if anything, of the value of the ores of silver, or the worth of silver gossans—consequently, a very profitable working could not be expected. When Wheal Duchy was taken up by the Malachys as Wheal Brothers, we all know that legitimate mining was not the first great object in view; therefore, with the lack of careful supervision, and the reckless expenditure that was carried on daily at the counting-house and elsewhere, it is no marvel that the dividends (first paid out of capital) could not be kept up; and if we follow the three or four parties that have been possessed of this mine since, we shall find they have all been deficient of capital, and, consequently, have failed. There is one remarkable fact, however, connected with this latter period of the mine—that while the proprietors have been disappointed, the tributers have been gainers.

The state of things has not been much better at Silver Valley. Mr. Lowe worked this mine under such circumstances as must render it impossible for him to be successful. Mr. Johnson's party next got possession of the property, under whose management it proved a complete failure.

Now, Sir, I come to the point, and will, in a few words, give my sincere opinion of these mines, and if it meets the eye of "A Proprietor," I hope that he will profit by it. In the first place, no lode which produces "bunches" of rich silver ore will ever be profitable to a company, though it may to a tributer: nevertheless, I believe Wheal Brothers, with proper and *peculiar* management, might be, to a considerable extent, a profitable concern. If Silver Valley were managed by an agent who knows tin in the stone, and is conversant with the best modes of breaking and dressing the ore, I do not hesitate to say that it would be a paying mine.—GAD: *Callington, Feb.* 11.

WHEAL LANGFORD (NOW WHEAL LANGFORD AND WHEAL BARING UNITED MINES).

SIR,—I was much pleased at the reports of these mines, having attended the general meeting, held on the 6th inst., at Gregory's Hotel, Cheapside, at which meeting Messrs. Arthur Dean, Robert Serjeant, of Callington, J. R. Vivian, the purser, and Capt. Knott, were present, when every information was afforded. Plans and sections were exhibited and explained, fully showing the deposits of silver and copper ore, with the future prospects. Mr. Dean particularly dwelt on the valuable extension of the sett, and the richness of the copper ore, averaging above 20 per cent., stating that, although the company are raising rich silver ore, which has paid cost from June last, still they must look to the large copper lodes for their valuable returns; and he had no doubt of it proving a rich and valuable mine. I have been looking out for the reports as coming through your valuable Journal, and hope we shall have them this week. As a disappointed shareholder, on account of the long delay in holding a public meeting, I deem it due to the committee of management to state that, after the explanation given by the secretary as to the cause of the delay, all present expressed themselves perfectly satisfied. Indeed, on no similar occasion did I ever witness a more cordial and unanimous feeling of confidence to prevail. Several influential gentlemen were added to the committee, which will give confidence to the public, and the more so, as I find the disputed shares, held in the name of Mr. Charles Jenner, of Barge-yard Chambers, are withdrawn, and are held by first-rate parties as an investment. There is now nothing to retard the forward progress of Wheal Langford.

London, Feb. 13. A SHAREHOLDER.

WEST WHEAL FRIENDSHIP.

SIR,—Having been requested to meet the committee on the above mine about a week since, for the purpose of giving my opinion as regards the future prospection, I am happy to say my suggestions met the concurrence of several intelligent and practical agents—viz.: that before they determined on a new sett, the lode in the 43 fm. level should be prosecuted with all possible dispatch; and also the 53, there being about 8 ft. to drive to cut the same lode at that depth. This level, when extended west, will be 70 fms. under the *surface*, whereby they will have an opportunity of developing the lode sufficiently to show its properties satisfactorily, to lay out the work in such manner as to bring the concern to profitable results—such a large and regular lode showing indications precisely of the same character as the Great Wheal Friendship. The stratum is a dark blue killas, very similar to the mine above referred to, and from which immense returns have been made. From the opportunities I have had of seeing the various levels in the old mine some years since, I feel myself perfectly justified in asserting that the West Wheal Friendship is well worth attention, with a capital commensurate with the proposed work, and that no delay should be occasioned on the part of the adventurers to retard the progress. Mr. N. Smith, engineer of Devon Great Consols Mine, also attended on the committee, and stated that the wheel was equal in power to the depth of explorations recommended—that is, to the 53 fm. level. He also recommended the propriety of a new set of rods of 2½-in. best iron—the present line of rods being unequal to the weight required. The committee directed him at once to order what was necessary, and I find the rods will be on the mine in the course of a fortnight complete, to carry the proposed operations into effect. I consider the call recently made will be ample to develope the lode so far in these levels to make the mine a profitable investment. Great praise is due to the purser and captain for their attention to the interest of the adventurers, and I hope the time is not far distant when they will be better rewarded.

West Wheal Friendship, Feb. 13. JAMES CARPENTER.

CAMBORNE CONSOLS MINE.

SIR,—I presume the inquiry as to the sale of ores from this mine, which you refer to under the head of "Correspondents," relates to our silver ore; in which case I beg to inform your correspondent that we have several tons dressed, and ready for the market, but which have been reserved for the lord of the soil at his particular request, in the hopes of adding to the quantity when the ore ground should be reached by another level; under the circumstances, therefore, no sale was effected.—F. DANIELL: *Camborne Consols Mine, Feb.* 11.

WHEAL ARTHUR MINING COMPANY.

A bi-monthly meeting of adventurers was held at the offices, White Hart-court, Lombard-street, on Thursday, the 13th instant.

WILLIAM H. CARLIN, Esq., in the chair.

The circular convening the meeting having been read, the following report of the committee was submitted:—

The committee you were pleased to appoint most respectfully hand you their report of this mine. The old workings, which are very extensive, have been cleared out, and are fully explained in the section now laid before you, which cost the former adventurers upwards of 20,000*l.* The capital expended by the present adventurers amounts to 287*l.* 8s. 7d., being a trifling outlay; but this has enabled the agent to set two pitches on tribute, at 10s. in 1*l.*, the takers to dress and make the ores marketable; and in the 50 fm. level a valuable and hitherto unknown lode has been discovered, containing copper ore of rich quality, samples of which are now produced. The balance-sheets, showing the assets and liabilities, is laid before you, the former amounting to 225*l.* 13s. 5d., and the latter to 43*l.* 18s. 4d.—leaving a balance in favour of the adventurers of 181*l.* 15s. 1d.; and your committee have now to request you will appoint auditors to examine the accounts, and report thereon. Your committee feel pleasure in expressing their great satisfaction at the prospects of this mine, now ascertained beyond a doubt, and have to request their brother-shareholders to satisfy themselves either by visiting the mine, or sending a practical agent to inspect it for them, when every facility will be given and readily afforded by Captain Thomas Carpenter, the company's agent. The reports which have been received from the commencement are for your perusal, and will be found worthy of your notice, in connection with the underground workings, as shown in the section of the mine before alluded to. Your committee, in conclusion, have to congratulate you as holders in this valuable property, trusting that a further trifling outlay only will be required; and as the newly-discovered copper lode is producing ores, in addition to the tribute pitches set in the main lode, large and profitable returns are confidently expected. And with these encouraging prospects, the committee beg leave to resign the trust you have been pleased to place in them into your hands.

The report of the committee was adopted, and the thanks of the meeting given to the chairman and committee, for the able manner in which they had performed their duties. The committee re-elected for the ensuing two months were—Messrs. J. E. Dunt, J. S. Carlin, W. Snell, S. Crosse, and W. H. Carlisle. The desirability of appointing a deputation of shareholders to visit the mine, with a competent agent for the purpose of inspecting and reporting on the same, having been discussed, it was resolved, that the appointment of such deputation be left to the discretion of the committee. Messrs. H. S. Peirce and John Barwise were appointed auditors, to examine and report on the accounts, and which, when audited, are to be entered in the cost-book. The cordial thanks of the meeting were given to the chairman, for his able and courteous conduct in the chair, when the meeting separated.

WHEAL LANGFORD AND WHEAL BARING UNITED MINING COMPANY.

A general meeting of shareholders was held at Gregory's Hotel, Cheapside, on Thursday, the 6th inst.,—STEPHEN BROAD, Esq., in the chair,—when the following reports were read:—

REPORT OF THE COMMITTEE.

At this first annual general meeting of the shareholders, the committee cannot fail to express their high satisfaction at the continued and successful progress of the company. They refer with pleasure to the report of Capt. Knott, showing the present state of the mine, and the discoveries already made, and congratulate you on the probability of other and more valuable discoveries being shortly made, as shown in the report of the engineer, Arthur Dean, Esq. They refer also to their inability to call their shareholders together at an earlier period; but as your committee were in treaty for a large and valuable addition of land, they thought it wise to delay this meeting until such treaties were confirmed. They now, therefore, congratulate you on the completion of that treaty, whereby the company have acquired, in fact, another mine, of even a larger extent than Wheal Langford sett. The last tract of land being held under Lord Ashburton, your committee propose that the mine should in future take the name of Wheal Langford and Wheal Baring United Mining Company. For the financial accounts of the company they refer you to the secretary's report, showing a balance in the banker's hands to the credit of the company. The usual two-monthly meetings of the adventurers, according to the rules of the cost book, will be held at the office of the company the first Thursday in the month. The committee, in conclusion, beg to assure their adventurers that they have devoted their single and united endeavours to forward the interest of the company, without either fee or reward, excepting that arising from a conscientious discharge of their duty, and the approbation of their co-adventurers.

General Statement of Accounts.

To amount on 6000 shares, at 10s. per share									£3000	0	0
June 11—Silver-lead ore, cwts.	5	0	26	at	£11	18	6	per cwt.	62	7	10
Aug. 5— Ditto			6	2	15	at	7	17	6	„	52	0	10
Oct. 3— Ditto			6	2	0	at	12	7	0	„	76	5	11
„ 25— Ditto			16	1	2	at	36	13	6	per ton	65	10	0
Ditto			25	1	3	at	28	4	6	„			
Ditto											58	16	1
Total									£3315	0	8
By purchase of sett									£1500	0	0
Sundry deputations—expenses to the mine									42	10	0
Dues to Mr. Langford									26	5	3
Mine cost—February, £60 0 9 | June, £63 11 5 | Oct., £76 11 8											
March, 62 14 6 | July, 54 16 1 | Novem., 62 16 9											
April, 68 9 5 | August, 62 6 1 | Decem., 71 3 9											
May, 46 14 8 | Septem., 63 10 10 |									692	15	8
Steam-engine (as per agreement)									200	0	0
Rent of offices and cottages on the mine									42	0	0
Office rent and secretary's salary, from 1st Jan. to 31st Dec., 1850									52	0	0
Ditto previous (as per agreement)									5	5	0
Cheque, Mr. Peters for Mrs. Worth									10	0	0
Balance									744	4	9
Total									£3315	0	8

CAPTAINS' REPORT.

Feb. 3.—Since my last to you, of the 13th Jan., we have driven about 7 ft. east on the new, or south silver lode, where we have a lode of a promising character: we have also commenced a rise in the back of the level, where we have some saving work for silver. We have about 2½ fms. to rise to intersect another lode, where we anticipate a deposit of silver ore. In our report of the 30th Dec., we stated we had driven about 3 fms. by the side of the lode, and after about 4 days' work, getting away the attle, we should be enabled to take down some of our silver lode, of rich quality; but, in consequence of the continued fall of rain, the surface water has been coming down in such abundance as to prevent our touching the lode in this level since; but as soon as the weather sets in dry we shall be able to resume our working in this level, where we anticipate making good and lasting returns; the stopes in the back of this level are still productive of silver ore, varying in quality from 50 to 300 ozs. to the ton. We have also cut into the copper lode about 40 fms. further west, where we have a lode about 6 ft. wide, producing good saving work for copper at a deeper level, a specimen of which we send you. We are progressing in the adit level, at Wheal Ashburton, or Baring, and have favourable ground for driving; and from the bearing of the Langford lode, we have about 5 fms. more to drive to intersect it. We have now two parcels more of silver ore ready for the market. No. 1, computed 25 cwts.; No. 2, 27 cwts.; samples of which have been forwarded to different smelting works.—W. KNOTT.—R. SERGEANT.

REPORT OF ARTHUR DEAN, ESQ., C.E.

Tottenham, Dec. 24.—The original Langford sett, granted by Walter Langford, Esq., was about 350 fms. in length upon the course of the north or main silver lode: to this has been lattely added on the west the Baring sett, an extensive tract of land forming part of Heigaston Downs, upwards of 500 fms. long, granted by the Right Hon. Lord Ashburton, so that the company is now possessed of a continuous run of ground upwards of 850 fathoms in length from east to west upon the chief silver and copper lodes, and in breadth north and south from 100 to 300 fms. The Callington and Tavistock turnpike road passes through the north-west part of the sett, and good parish roads connect the mine with Cothell Quay, the shipping place on the Tamar, distant about three miles. A small stream of water forms the southern boundary of the sett, and will be highly useful for dressing purposes, but is not sufficiently powerful in the dry season to effect the drainage of the mine, which must be done by steam-power. The sett is situate entirely upon the killas or clay-slate formation, and lies upon the southern slope of the Kitt Hill and Heigaston Downs granite ridge; the mine is distant about three-quarters of a mile from the outcrop of the granite. It is a well-known fact, that at about this distance from the granite a broad belt of killas encircles it, in which the greatest mines of the district have been found—viz.: Holmbush and Callington Mines on the west, the Devon Great Consols on the north-east, the Bedford United and Crebor Mines on the east, Drake Walls on the south-east, and Wheal St. Vincent (late East Cornwall Mines, one of which is Wheal Langford) on the south-west; others, though smaller mines, are now being opened in the spaces between the mines just enumerated, some of which are of a very promising character. The killas beds at Wheal Langford may, therefore, be considered as belonging to the most metalliferous mineral-bearing series known in the district. The sett is traversed for 850 fms. in length by the north or main silver lode, which bears a few degrees north of west, and south of east, and underlays south about 2 ft. 6 in. per fathom. Several large branches fall into it, all of which bear from it south of west, and for the most part underlay south or south-east more rapidly than the main lode, hence the lines of junction dip east along the latter, which is generally rich in silver immediately behind, and on the west sides of the junctions, and the shoots of silver ore follow them down in depth—an important fact, as it enables us to trace the causes of the deposits of silver ore formerly worked in this lode, and will serve as a guide in seeking for other deposits; small leaders of quartz spar, bearing nearly north and south, occasionally intersect the silver lode and its branches, and silver ore has often been found accumulated about them in the lodes at the points of intersections, but the silver branch veins are generally poor at their junctions, although the latter is there enriched. The main lode varies considerably in appearance, according to the character of the killas it passes through; it is for the most part composed of oxide of iron, light cellular quartz, and light grey, or dark blue flookan clay—the branches generally contain more flookan than the main lode. The killas beds, in horizontal bearing, differ only by a few degrees from that of the main silver lode, and dip south from 8 to 12 ft. per fathom, but along the walls of the lode their dip east is not generally more than 1 ft. perpendicular in 50 ft. horizontal. In the eastern part of the mine, in the upper levels, the killas beds are of a very fine smooth grain and light grey colour, and here the lode is found to be rich in silver, which appears to make chiefly in the quartz and oxide of iron; west of Malachy shaft a change occurs, and the killas beds in the western part of the adit level are of a coarse grain and dark blue colour, and no silver ore has yet been broken in that part of the mine where the main lode is composed of cellular quartz and blue flookan; the branches, of which there are several, contain chiefly flookan and strings of quartz. The parties who drove the Langford adit appear to have been misled by the circumstances of the flookan part of the lode, in the workings east of the Langford sett, having been found richest in silver, and have driven the adit east 250 fms. upon the courses of a succession of flookan branches, and for that distance abandoned the main lode altogether; the end of the adit is nearly 40 fms. south of the latter, and so far as can now be ascertained, the branches driven upon were utterly unproductive in the adit, and have not been seen by any workings beneath. Of copper lodes there are three known in the sett; the first, which I shall call the Langford, is supposed to be about 60 fathoms north of the main silver lode, at the western boundary of the sett, from thence it gradually converges towards the latter lode, and about 750 fms. further east the two lodes fall together, and as the copper lode underlays south in the same degree as the silver lode, the latter lies immediately upon it; and, with the exception of occasional thin horses of killas intervening between them, they continue to run together throughout the extent of the sett, east of their junction, both horizontally and vertically; they, however, continue perfectly distinct in character and contents, nor is the silver lode, or any of its southern branches, ever known to penetrate the copper lode. Where any small branches from the north pass through the copper lode into the silver lode, they generally carry silver, sometimes mixed with lead near the points of junction, and the main lode is also enriched. The Langford copper lode averages nearly 6 ft. in width, and where seen in the adit it presents a very kindly appearance, although only 12 fms. beneath the surface, being composed of quarz, mundic, and gossan, with copper ore of very rich quality disseminated through it, in some parts sufficiently rich to pay the cost of working, but it does not appear ever to have been wrought by the former companies, except in the back of the 20 fathom level, west of Malachy shaft, where, I am informed, about 20 tons of very rich copper ore were raised from a small tribute pitch; the present company has cut into it from the adit 40 fathoms east of Malachy shaft, and it has there a very promising appearance, containing a considerable quantity of copper ore, good dredge work; a cross-cut north, from Langford shaft, 35 fathoms further east, has been driven through the lode, and shows it to contain ore of a very good quality. These, then, appear to be the only points where the copper lode has been tried, although the silver lode has been wrought to the depth of 45 fathoms, and in length, upwards of 200 fathoms, the more precious metal having been exclusively followed; but, in my opinion, the copper lode will ultimately prove to be the most valuable, and from the fact of their lying the one upon the other for so great a distance, both lodes may be wrought together much cheaper than either could be separately. About 35 fms. south of the Langford copper lode, at the level of the adit, is the Old Harrowbarrow copper lode, running parrallel to it, with a north underlay about 2 ft. 6 in. per fathom, and forms a horizontal junction or intersection with the former, at about 45 fms. below the adit. The Harrowbarrow lode has been seen beneath the surface at this point of junction, down to which the Langford and Malachy shafts were sunk, and there the lodes are said to have presented a kindly appearance, but no drivage was made upon them at that level below the junction; I think the probabilities are much in favour of large deposits of copper ore being found, and perhaps silver also. The third, or Silver Valley caunter copper lode, sometimes called the jack lode, has been seen in an adit driven up Silver Valley, 40 fathoms north of Langford lode, and is found to underlie north; it has also been seen about 90 fathoms further west, in the end of a cross-cut of 7 fathoms, north from Langford lode, and it is thought will fall into or intersect the latter about 20 fathoms west of the cross-cut. The line of junction will dip west along the Langford lode, and to the effect of the caunter lode upon it, do I attribute the enrichment of the latter lode at the points where it has been cut into in the adit, and the 20 fm. level west; and my opinion is that the lode will be found to be the richest in the vicinity of, and on the east side of the caunter junction. Where the Silver Valley caunter, the Langford, and Old Harrowbarrow copper lodes come together, about 45 fms. below the adit, and west of Malachy shaft, some important results may be looked for. In the western part of the Baring grant a powerful cross-course, bearing a little west of north, and underlying west, believed to be the same as that found in the Callington and Holmbush Mines, where vast quantities of copper ore have been found in the lodes intersected by it. It intersects the silver and copper lodes near Pengelly cross-course, and about 300 fms. further east another large cross-course has been found. This part of the sett is of great importance, and is fully equal in value to the best parts of the old mine; the killas, the lodes, and the cross-courses, are all of a most favourable character, and give promise of great results, and would fully warrant the opening of a mine in this locality. As part of the East Cornwall Mines, Wheal Langford was worked from 1834 to 1838, for silver only. The adit was driven west 350 fms., and Malachy and Langford shafts, 75 fms. apart, were sunk upon the course of the silver lode to the depth of 45 fms. beneath the adit; between them, and west of the former, levels were driven at 10, 20, and 35 fms., and a 45 fm. level was commenced. In 1838 the workings were abandoned. In 1850 the present company commenced its operation, which, up to the present period, have been confined to the ground above the adit level. In the adit, at Langford shaft, a large south-west flookan branch falls into the main silver lode, and the line of junction rises west up to the surface, and dips east down through the old workings; and in the main lode, following down the line of junction on the west side, the finest deposits of silver ore discovered by the former workers were found. Above the adit level, within 25 fms. west from the shaft, the lode has been stoped away to a considerable extent up to the line of junction in the back, and in one small stope, as I am informed, 3000*l.* worth of silver ore was broken. We have, therefore, in this case clear evidence that the shoots of silver ore follow the junction lines of the lode and its branches. From Langford shaft a cross-cut has been driven north about 7 ft. through a horse of killas, which there separate the silver and Langford copper lodes; the latter has been cut into, and presents a promising appearance. At 8 fms. west from the shaft a cross-cut is being driven south from the adit upon the course of a small north and south quartz branch, to reach a point not far distant, where it is expected to intersect the south silver branch before-mentioned, and the latter may probably be found rich at the intersection.* The adit has been continued west upon the course of the main silver lode, which at 20 feet from the shaft falls in with the Langford copper lode, the horse of killas having disappeared, and they continue to run together about 65 fms. further west; at that point they separate, and the copper lode has not again been seen from the adit. At 30 fms. from Langford shaft the main silver lode splits into two branches, separated by a thin horse of killas; the south branch underlays rather more rapidly than the main part, and they do not again unite in the adit, but in the back they form a continuous line of junction, rising gradually west from the point of departure in the adit level, and dipping east from it down through the workings of the last company. In driving the adit west from the fork, the singular error was committed of selecting the south branch to drive upon, leaving the north or main part of the lode untouched for a length of 30 fathoms; and I am informed by parties acquainted with the workings beneath, that the 10, 20, and 35 fm. levels have also been driven upon the south branch, so that the main lode was never seen in any of the workings for a considerable distance west of the fork—a circumstance of great importance to the present company, as I will proceed to show. When the mine was re-opened, in the early part of the present year, a drift was commenced from the adit level, west of the fork, upon the north or main part of the lode, and almost immediately a rich course of silver ore was discovered, which has been driven upon 12 fms., and is still to be found in the end of the level; a stope was commenced in the back, which is now being worked, and I understand a sufficient amount of ore has been raised therefrom to pay the current cost of the mine. In the bottom of the level I broke some rich stones of silver ore, and no trial has been made below this point; but, judging from the fact before mentioned, that the shoots of silver ore follow down the lines of junction made by the main lode and its branches, there is good reason to suppose that in the present case one of the finest courses of silver ore yet discovered in this mine may be found dipping slightly east, and descending in the main lode west of the fork, so as to be easily reached when the mine is drained, by driving north from the levels already made at 10, 20, and 35 fathoms below the adit. With the exception of the stope now at work, no trial of the silver lodes at their junction above the adit has been made, although the ore known to be there united for several hundred fathoms in length; a shallow level, driven upon the north lode, immediately under the line of junction, would probably intersect some rich bunches of silver ore. At about 30 fathoms west from the fork the south lode approaches so near to the north lode, that they are both carried in the width of the adit level, and they so continue to about 120 fms. from Langford shaft, where the divergence becomes greater, and from this point the adit was driven 80 fms. upon the south branch only to Broad's shaft, where a cross-cut north, 2½ fms. long, reaches the north lode, on the course of which the shaft has been sunk by the present company 34 fms. from the surface, down to the adit, and in the shaft the junction of the south branch with the north lode in the back may be seen, as also that of another branch which bears south-west; the adit has been driven 150 fathoms further west, until the end is about 35 and 40 fms. south of the north lode and south branch. At the junction of the two south branches some ore may perhaps be found in depth, although none appears in the adit. The drainage of the workings below the adit was formerly effected at an engine-shaft sunk in Mr. Tucker's land a few fathoms east of the eastern boundary of Wheal Langford sett, but this shaft is not now within the control of the company. I am informed that a treaty is in progress for the acquisition of additional grants, including Mr. Tucker's land, by which the use of the shaft and buildings erected upon it may be secured. My opinion having been asked as to the terms demanded of this company for a lease of the land, &c., I beg to observe that I think they are much too high; and as the company already possesses a continuous run of ground, nearly one mile in length upon the course of the lodes, it would be more desirable, if the present demand is persisted in, to sink further west, which should command the silver lodes, the Harrowbarrow, the Silver Valley caunter, and Langford copper lodes, at their points of junction and intersection, and to which points, under any circumstances, the future operations below the adit, in the eastern part of the sett, must be mainly directed, as the chief deposits of ores must be sought for there, and not in Mr. Tucker's land, nor in the ground immedately east of it. Mr. Tucker's land is only 40 fms. in length upon the course of the lodes, and the silver ore above the 40 fathom level has been, I am informed, nearly all worked away; and at 90 fathoms under the adit the silver lode and Langford copper lodes will pass south into the property of another person. If the use of the shaft, &c., could be secured at a moderate rental, it would be a valuable acquisition, but on the terms demanded it ceases to be desirable; and a new shaft in the locality I have indicated would be cheaper, because, under any circumstances, such a shaft must be there, sunk by this company; and being placed at the points where the indications of mineral wealth are most strongly marked, the exploration of the lodes from the surface downwards, in virgin ground, could be effected more readily and economical than by operations connected with Mr. Tucker's shaft. In conclusion, I have the pleasure of recording my opinion that the mineral property of the company is of first-rate promise. A large amount of ground has been laid open, which is now available, and the character of the lodes, country, &c., is sufficiently developed by former workings to enable the agents to conduct their future operations with a much greater degree of certitude as to the results than in times past. The sett is now greatly extended, and is large enough for two or three mines. By working the mines as copper mines, and looking upon the silver ores as valuable adjuncts only, and not as the principal objects of pursuit, this company will take up a position greatly superior to that of the last workers, who, by confining their attention to the silver ores only, voluntarily deprived themselves of their best, if not their only, chance of obtaining a permanently remunerative mine.

* Since this report was written, the south branch has been cut, and found to contain some good silver ore.

SUGGESTIONS FOR COLLIERY VENTILATION.

In a previous Journal, we announced our intention of entering fully into Mr. Ryan on Blackwell's suggestions for the efficient ventilation of collieries, and as the data supplied in the report of that gentleman is applicable to each description of working, showing more immediately the objects to be obtained than practical details, under all circumstances, of the means of obtaining them, we now proceed to lay the same before our readers. Mr. Blackwell first assumes that in every case it is highly desirable to consider the area, or extent, of working usually connected with a single winning in various districts, as this will show how greatly the volume of air required must vary, necessarily under differing circumstances. The average extent attached to one winning in the Newcastle coal-field may be estimated at from 500 to 2000 statute acres. In Lancashire and South Wales, 25 to 250; but in Staffordshire not exceeding from 10 to 20. As the winnings get deeper in Lancashire and South Wales, the extent of superfices will increase. The practice in the Newcastle coal-field has further augmented this great disproportion in the relative size of workings on a single winning; it is by partially excavating the entire extent of these enormous areas, and thus permitting the whole of the coal contained in them, and the roof and floor of the seam throughout the mine, to discharge their gases on all sides into the working currents; while an enormous drawback is caused by the friction created in these currents by the length and curvature of their course. This disregard of an important principle, which should always be observed—that of only keeping at one time a proper and limited extent of workings open for a necessary supply, independent of the leading drifts, which should always be in advance of the working places—has in all cases been productive of difficulty, expense, and danger, in addition to the deterioration of the coal thus partially worked by exposure to the action of the atmosphere.

The actual cause of the greater prevalence of explosions, involving an extensive loss of life in the Newcastle field, as compared with other districts, is more correctly attributable to the greater extent and depth of the workings than to the more fiery nature of the coal itself, which has often been assigned as the cause. When the coal in other districts is worked to equal depths, at a distance from the line of outcrop, they will probably be found equally fiery and dangerous, unless correct systems of ventilation are adopted. Even the anthracite coals of South Wales actually yield large quantities of this gas; and the recent explosions which have taken place in Lancashire, Yorkshire, and South Wales, strongly point out the necessity of abandoning the old systems of arrangement and ventilation, which are, in numerous instances, still followed in those coal-fields. Although these old methods might not lead to violent accidents in workings of small extent, they are no longer sufficient under the new conditions. Mining operations are often conducted without due consideration to future requirements, and without laying down at first such a system as will provide for them. The consequence is either liability to violent explosions, or at least a vitiated and loaded atmosphere, highly injurious to the health of the miners.

There are three principal objects which should be proposed in the ventilation of all mines—the introduction of a sufficient quantity of air, its proper distribution, and the security of the arrangement to maintain this distribution and circulation. The quantity of air introduced should not be merely that which is necessary, barely sufficient to neutralise and carry off the explosive and noxious gases as they are formed under ordinary circumstances, but also to supply a volume sufficient to provide for an unusual emission of them, and to dilute them to such an extent as to avoid danger, while at all times a healthy atmosphere is secured to the workmen. As to the distribution of the air introduced, every part of the excavations should have a requisite circulation, and none be left stagnant for the accumulation of gas. It should be conducted to every part without waste, and without coming in contact with the gases before it reaches the men; and proper provision should be made for its separate return or escape, carrying off with it these gases as soon as it shall have been anywhere perceptibly loaded with them, without again entering the working districts, or coming in contact with the workmen or their lights. Thirdly, the security of the arrangements consists in the stability of the air-ways, their freedom from leakage, and strength to resist the shock of an explosion. Attention should also be paid to the equible action of the motive-power employed to produce circulation.

In determining the requisite measures to effect these objects, it is necessary to take into consideration the following points:—The nature of the seam to be worked, its thickness, and inclination; the character of the accompanying strata; the extent of the workings to be effected, and that of the surface of coal which will be exposed at once in the excavations; the state of these workings at different and future periods; and the number of workmen which will be employed. This latter point particularly is one of the most important elements in determining the quantities of air which should be introduced into a mine, and from the data collected on the subject, Mr. Blackwell estimates the quantity necessary to vary from 250 cubic feet per minute in seams which are not fiery, up to 500 cubic feet per minute in fiery seams, for each person employed. Attention is strongly called to the necessity and importance of measuring, and recording at stated times, the quantities of air passing through the mine, as the volumes taken at the shafts give erroneous results as to the more distant parts, owing to leakage and return currents before the air has reached the workings. Investigations into numerous cases show that explosions have occurred from a defective state of the air, which would have been immediately evident on measurement, and the accident avoided.

The following subjects next come under consideration:—The motive-power applicable to the ventilation in mines; the velocities of the air-currents, particularly as connected with loss of effect from friction; the relations of velocity and friction to the area, form, and length of the air-passages, and the separate volumes into which the total amount of ventilation should be divided. The effective power of furnace ventilation is next noticed, which Mr. Blackwell takes as a standard of reference. It fulfils the most important requisites in motive-power, by its efficiency, the uniformity of its action, and the easy control which it admits of. The steam-jet is inferior to it in some of these respects, but is free from objections to which the furnace is open. The principal objections to the furnace are, the possibility of its exploding foul returns of air, either when the state is permanent, or produced by sudden emissions of fire-damp; the first is avoided by feeding the furnace from a split from the intake air, or from a portion which has had a short run, and contains little inflammable gas. For the latter when prevalent, and for fiery seams in general, it would, probably, be advisable to employ the steam-jet, the waterfall, or some other motive-power than the furnace.

The steam-jet, although in the only instance when Mr. Blackwell could compare the two forces independently, the consumption of fuel to produce the like results was 25 per cent. in favour of the furnace, is recommeded in upcasts shafts when the temperature should be confined to 80 or 90° Fahr., to prevent injury to the winding apparatus, and the health of the men ascending and descending. The inconvenience arising from the condensation of large quantities of steam in winding shafts would be greatly obviated by using it in combination with a column of heated air, while the volume of air obtained would probably be considerably increased; in such cases, however, the air passages must be correspondingly enlarged, with the additional power employed. In considering the velocities of air currents, the question is what are found in practice to be the rates attainable, without an excessive loss of power by friction? The highest velocities Mr. Blackwell has found in practice to be obtained in upcast shafts, used also for winding, are from 8 to 10 ft. per second. The relation between the sectional area of the upcast shaft, and that of the aggregate of the air-ways, is important in cases where a high degree of ventilation is required to be maintained. The following is proposed as a suitable rule:—That since when this shaft is used for winding with double bands and open cages, a rate of velocity of 8 to 10 ft. per second is required, the aggregate sectional area should be double that of the shaft. If not used for winding, but for upcast only, the velocity maintained in it may be from four to six times greater than that which should be found in the mine; and equal sectional areas will, therefore, be sufficient.

Respecting volumes of air-currents, to determine them properly the thickness of the seams of coal, and their yield of inflammable gas, must be considered. In seams about 6 ft. thick from 10,000 to 15,000 cubic feet per minute, according to the extent of the workings, will be found convenient, and these may be reduced according to the diminution in the thickness of the seam. In thin seams 5000 cubic feet per minute will be found a suitable quantity. Air-ways should be rendered as direct and short as possible. By a proper system of arrangement and division, the longest which can be required need not exceed greatly a length of three miles in a mine extending over 1000 acres, nor five miles in one of 2000 acres. If an adequate area be afforded in the air-passages, there is no further practical difficulty in introducing any required volume of air into mines. By a system of well-arranged air-ways, to insure a proper distribution of the currents, the comparatively small quantities of inflammable gas which are yielded, even in the most fiery mines, may be confined to narrow limits, and diluted and removed with safety under all circumstances. By the division of an extensive mine into sections, so as to restrict the length, and isolate that portion of air into which fire-damp can enter, the effects, in the event of an explosion, may be rendered only partial. The causes of explosions are then examined, and divided into four classes—permanent yield of gas from the working of the coal, sudden and large discharges or blowers, stagnant fire-damp in the goaves, and isolated roads, or workings, where fire-damp accumulates. The best methods of treating each of these cases are then taken into consideration, but to follow the author would only be a repetition of what we have advanced in this summary. It will be observed that this essay on ventilation is by no means put forth by its author as a new system. He has carefully examined the various appliances for economically and safely working a colliery, and has suggested the best means of combining them with the greatest beneficial results, and the careful examination and most scientific modes of working, for securing to the working collier the highest possible amount of safety, and, as such, we have no doubt will be perused with interest by all persons connected with collieries who have not seen his report.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—At our setting, on Saturday last, we set Field's engine-shaft to sink under the 80 fm. level, and the 80 fm. level to drive east of said shaft. The lode in the 70 fm. level, east of the engine-shaft, is from 8 to 10 ft. wide, worth from 60*l.* to 70*l.* per fm. The rise reported over the 70 fm. level last week is communicated to the winze that was sinking under the 60 fm. level, west of Wyld's shaft, which has well ventilated this part of the mine. The stopes referred to in the last report, over the 70 fm. level, were, on Saturday last, set on tribute to eight men, at 1s. 6d. in 1*l.*, and the men that were sinking the winze below the 60 fm. level are put to stope over the 70 fm. level, west of the said winze. Wyld's shaft has commenced sinking under the 60 fm. level. The Oak Tree lode in the 10 fm. level, east of said shaft, has a promising appearance, and is from 1 to 2 ft. wide. Our tributers are 20 men, at the average tribute of 1s. 6d. in 1*l.* The prospect of the three mines is good. The boiler that was damaged by explosion is repaired, and put to work, and hope this week to get the mine in a proper state of working.

BARRISTOWN.—We have drawn upon the branches I alluded to last week a few feet, and on going south we came in contact with ground of a broken character, which completely destroyed them; and I have put men to drive again on the slide, to prove if any more branches or lode are to be found in such a direction. The branch in the end east is very small, worthless, and unpromising. The ground in the cross-cut is as promising for mineral as I would wish to see; it is a very pretty clay slate, and frequently there are prian heads and soft spar passing through the end.

BEDFORD UNITED.—In driving east from the engine-shaft, at the 115 fathom level, the lode is nearly 3 feet wide, and producing fine stones of ore, with other promising indications; at the same level, east of Andrew's winze, the lode is 4 ft. wide, composed of fluor-spar and mundic, with very good stones of ore; it is a strong promising lode, and there is every appearance of our being close to a course of ore. In the western end, at this level, the lode is yielding saving work, and in an improving state; in the eastern end, at the 103 fm. level, the lode continues to be worth 10 tons of ore per fm. We have about 3 fms. to drive to get under Arscott's winze. In Arscott's winze the lode is worth 12 tons of ore per fathom for the length of the winze; in the eastern end of the winze there is a very fine lode; in the western end it is not so good, and there is a foot or two of poorish ground between the ends. In the 90 fm. level east the lode is yielding good stones of ore, and although not rich is otherwise kindly and promising. In the 80 fathom level we are cutting through the capel, but have not yet reached the main part of the lode; the capels are spotted with ore. The ground in the 47 cross-cut, towards the Tavistock lode, is more favourable for driving, and we expect the present end is not far from the lode. The pitches generally are looking very well, and the mine altogether is in a very healthy and satisfactory state.

BODMIN CONSOLS.—I have this day (Feb. 12) broken some rich work from the lode in the 13 fm. level; I should say it will produce at least 100 ozs. of silver to the ton of ore; I never saw the lode in this level look so well; we have a regular leader or branch 4 in. wide. We have commenced stoping the piece of ground in the north adit, and have this day taken out rocks more than 100 lbs. each. of good work. Our prospects were never so good as at the present time, and the mine will, ere long, be classed among the dividend-paying mines. Our engine-shaft will be down to the 26 fathom level by the end of this month; and, from the improved state of the ground, I think we may safely calculate on cutting a rich lode.

BODMIN WHEAL MARY.—In the winze on No. 1 lode, at the adit, we have set a pitch on tribute, at 6s. 8d. in 1*l.* No. 3 lode, in the 10 fathom level, continues still to improve; it is a very kindly lode, with fine stones of copper ore throughout. The lode in the eastern winze, on No. 4 lode, in the adit, is worth 20*l.* per fm. The mine, in other respects, is as last reported. No. 1 lode is not yet cut in the 10 fm. level. I expect to set two more pitches in a few days.

BORRINGTON PARK.—The end is in about 15 fms. from the new shaft; the lode is from 3 to 4 ft. big, good saving work, and, from all appearances, it is likely we shall meet with greater quantities of lead going up the Coombe. We shall commence shortly to bring home our leats, and make floors for dressing the work.

BOTTLE HILL (Plympton St. Mary).—This mine, formerly so productive, is again put to work, and with every prospect of success. The following report has been received from Capt. Dunn, the agent on the mine:—In handing you my report for this week, my remarks must necessarily refer to our surface operations principally, as until we get our machinery erected our underground workings will be on a limited scale. We are, I am happy to say, progressing most spiritedly, and I shall very soon be able to make returns. In rising on the back of the 24 fm. level we cut a good lode of tin, worth at least 10*l.* per fathom; we broke here about 100*l.* worth, but have been obliged to suspend operations until our whim is erected to take away the stuff. We are clearing the deep adit with all possible dispatch, and I am pleased to observe that everything about the lodes seen is indicative of the most favourable results, and I feel perfectly satisfied that we shall have a good dividend-paying mine. In my next report, I shall be able to furnish you with some information about the cross-courses. The counting-house, smiths' shop, powder-house, material-house, and carpenters' shop, are being put in repair.

BRYN-ARIAN.—The 10 fm. level continues the same as last reported—a large lode, spotted with ore. The stope in the back of this level is yielding from 10 to 12 cwts. of ore per fm. We have an account of the arrival of the vessel with the pumps at Aberystwith, and hope in a few days to have them on the mine.

CALLINGTON.—We hope to fix the balance-bob, rods, and poppit lift in the diagonal shaft at the north part of the mine this week, and commence sinking below the 125 fm. level the following week; the lode in the north end, at this level, is 1 ft. wide, producing stones of lead, and laying open ground that will be wrought at a moderate tribute; the lode in the south end is 10 in. wide, producing a small quantity of lead, and I think, ere long, an improvement will take place. The lode in the 112 fm. level north is 10 in. wide, producing saving work; the lode in the south end is 14 in. wide, producing 3 cwts. of lead per fm. The lode in the 112 fm. level, north of the south engine-shaft, driving towards the above-mentioned level, will produce 7 cwts. of lead per fm.; and should the ground continue as at present two months from this time, a communication will be effected, and the water equally divided. Since the last report, we have communicated the counting-house shaft to this level, which has thoroughly ventilated the place, and, after a plat is cut, much greater facilities will be afforded for drawing away the stuff than there is at present; we shall also sink below the level on the course of the lode as far as we possibly can with barrels, until the 125 fm. level, north from the south shaft, is extended under it. At present we are driving east of the old level, to intersect the lode which was lost; we expect 2 fms. driving will reach it. Johnson's lode, in the 125 fm. level, east of the lead course, is 2 ft. wide, composed of spar, mundic, and spots of copper and tin, ground rather spare; the same remarks will apply to the 112 fm. level, east on the same lode. At Kelly Bray, no lode has been taken down in the rise above the 70 fm. level since last reported on; we are rising by the side of it, in soft clay-slate, for advantage, thereby saving the lode to itself. I have before intimated to you the misfortune we met with in breaking the shaft of the fly-wheel of Kelly Bray engine, which has let in the water in that department for the time, until the new one is sent, and the water forked out. We are expecting its arrival here hourly. Previous to the breakage, several small branches were cut in the 50 cross-cut, going north from the shaft, each containing copper ore, and dipping in that direction. We hope to sample a parcel of lead ore at the usual time, computed 45 tons. We may add, that not a moment shall be lost, day or night, until the water is again in fork at Kelly Bray Mine.

CWMYSTWYTH.—The 40 fm. level has reached soft ground, which has cut the lode as in the levels above, but 6 or 8 fms. further forward. The lode in the 30 is still large and wet. The prospects in the 36 continue good, all the ore being raised from that point. At Kingside the operations are much impeded by the wet weather. The lode is strong in the adit level, with some ore. Taylor's level is driving east, on a large lode, containing a little ore.

DEVON AND COURTENAY CONSOLS.—We have taken down the lode in the 40 fm. level, and am glad to say it continues equally good—finer specimens of yellow ore, and coated with grey ore, were never seen; and in desuing the lode, which we are now doing, we have the same favourable indications of its continuance as we had before. There is no alteration to notice in any of the drivings, nor the tribute department.

DYFNGWM.—In the 32 fm. level, west of engine-shaft, the forebreast has been driven 3 fathoms 5 feet; throughout the driving of this ground the lode has been from 3 to 4 ft. wide, carrying a good leader of lead ores in the north part, and producing on an average 1¼ ton of lead ore to the fm.; above this level, we have stoped in the past four weeks 6 fathoms; the lode in this stope is large and orey, producing on an average about 15 cwts. of lead to the fm.; below this (32 fm.) level we have stoped 5 fms., and it is about 3 feet wide, composed of blende, carbonate of lime, quartz, and lead ore, of an excellent quality; the lode going down in this level is far more regular and compact than it has been in the upper levels, and from a change in the strata which has recently taken place, I have every reason to expect a first-rate lode in the 42 fm. level. We have commenced sinking our engine-shaft below the 32 fm. level, and have set the whim-shaft to sink on the course of the lode; these two shafts below the 32 fm. level will be sunk with all possible speed; the 32 fm. level east is suspended for awhile; the ground in this level is much the same as when last reported on, and the lode remains unproductive at present. However, we have set a new winze to sink below the 22 fm. level on the course of the lode, and we intend pushing on the winze with all speed, it is from 3 to 4 ft. wide, producing good lead ores; this winze when down to the 32 fm. level, and the communication made, will well ventilate the mine, and greatly facilitate the stoping between the two levels. In the 22 fm. level, west of sink steel ore, the lode is large, composed of blende, quartz, and spotted with lead ore—driven in the past five weeks 4 fms. 5 ft. Stope No. 4, in the botton of the 22 fm. level, west of whim-shaft is still productive of lead ore—in the past nine weeks the men have excavated 5 fms. 2 feet 2 in., the lode producing on an average about 18 cwts. of lead ore to the fm.; I have set this stope to four men—price given 3*l.* per fathom Stope No. 1, in the bottom of the 22 fathom level, east of shaft, is producing about 1 ton of lead to the fm.; the lode is large, and looks very promising—stoped in the past nine weeks, 5 fms. 1 foot—setting price 2*l.* 15s. per fm. At new whim-shaft, in opening the old mine, working above the adit level, we found a quantity of dangerous ground, which took us securing much longer than we expected; however, we are all ready for drawing through this shaft at present, and have only to cut some little ground in the adit level for a railroad, &c., but as we have a good supply of surface water for our engine, we hope we shall not be under the necessity of drawing through this shaft for some time. By keeping the fillers, landers, and rammers constantly at work (for we have had but very few breakages to our machinery), we have succeeded in drawing to surface 4182 kibbles from the 22 and 32 fm. levels, besides putting a great quantity of attle to shell above the 32 fathom level. We have sampled and shipped, per *Friendship*, of Aberdovey, 11 tons of lead ore, and have now at Derwentlass 6 tons; besides this we have about 5 tons in course of washing, and upwards of 20 tons now at surface. We expect to sample by the end of this month, 20 tons or upwards. In conclusion, I beg to say that our prospects are very encouraging, and trust ere long to see our mine making regular returns.

EAST BALLESWIDDEN.—The framework of the wheel is all in order to put up the axle; this week we shall have the axle brought to the mine. The sawyers, carpenters, and smiths can do no more than they are doing. We have made good 100 fms. of leats, to bring the water to the wheel. We have discovered a branch of tin in the adit level since my last report, 6 in. wide, worth 8s. per sack, which we shall be enabled to work after the wheel is completed.

EAST CROWNDALE.—The bunch of tin in the bottom of the 40 fathom level, east of middle shaft, still holds good, and, from its general character, I believe it will be a lasting bunch. A specimen of the ores you will have forwarded to you per mail train to-morrow (the 8th inst.) No alterations in the 40 since my last—still a good leader of tin: our operations have been suspended in the driving of this end for the last 24 hours, in order to communicate the winze above with this level, and hope it will be completed by Tuesday next. Some of the lode has been taken down in the 50 east, where we find a good leader of tin; and I flatter myself that, as this level extends east, we shall have as rich a lode as in the level above. Our next sampling will take place on the 18th inst. or earlier, if possible—quantity 12 tons.

EAST SHARP TOR.—I am glad to say the cistern plat is completed, and the men are now engaged cutting down the south side of the shaft, to form the underlay. I hope in about a fortnight from this time the plunger will be fixed, and the sinking commenced diagonally; the water, I am happy to say, is reduced to 7 strokes per minute.

EAST WHEAL GEORGE.—The 12 fm. level, east of the engine-shaft, is without any material alteration since my last; some good stones of ore have been broken on the north part of the lode; the stopes in the backs of this level are much as when last reported, yielding 20*l.* worth of ore per fm. The cross-cut in the 23 fm. level is extended about 2 fms. 3 ft. south of shaft, the ground in which appears to be more favourable for driving, being composed of a beautiful killas and spar. More would have been done in the cross-cut during the past week, had not the sumpmen been engaged several days in dividing and casing down the shaft, putting in footway, &c. We sampled for the first time at Lopwell on Wednesday the 5th inst., January ores, 21 tons 1 cwt. 2 qrs., dry weight. We should have sampled before, had not the late heavy rains prevented us from drawing off the ores. We are getting on as fast as possible with the dressing of another parcel, which will be ready at the usual time. I expect the produce of the last will be equal to the former parcel—viz., 16¾.

EAST WHEAL RUSSELL.—We have not done anything in the bottom of Hitchins's shaft in the past week, as we are down as far as we can go for water, but I think we shall be ready to sink by the beginning of another week, as we expect our engine will be ready by that time to go to work. We have cleared the adit level east of Hitchins's shaft 15 fms.; the lode is just the same as we have proved it west of the shaft, composed of prian, quartz, peach, and capel, of the finest quality, indicating large quantities of copper ore.

ESGAIR LLEE.—In the cross-cut, driving north of the deep adit, we have not yet cut the north lode, but hope to do so in the course of the coming week. The lode in the 12 fm. level, east of Morgan's winze, is at present poor, a large portion of the lode being composed of gossan, and producing some good stones of ore, but not sufficient to set a value on; the lode in the winze below the 12 fm. level is looking very promising, and will yield from 10 to 15 cwts. of ore per fm. The lode in the stopes, on an average, is much the same as in my last, yielding about ½ ton of ore per fm. The weather during the past week has been very wet and stormy indeed; and the last parcel of lead ore, computed to be 20 tons, and sold on the 1st inst. to Messrs. Walker, Parker, and Co. at 11*l.* 1s. 6d. per ton still remains at Aberystwith, the weather being too rough for any vessel to take it.

HAWKMOOR.—In our report, a fortnight since, we announced that we had cut 2 ft. into the lode east of where it is hove, north of the cross-course, and had found it orey throughout, and of the most promising description. Since then, we have driven 6 ft. further by the side of it; and, on taking it down, find it fully 3 ft. wide, of the same promising nature, and worth apparently 4 tons per fathom for copper ore; this is in the 30 fm. level east. The stope under the 20 fm. level west is still worth 6 tons per fm. In other respects the mine continues as last reported. We sampled, on Tuesday last, 37 tons 11¾ cwts. of good quality ore.

HENNOCK.—The engine-shaft is down 9 feet under the 20 fm. level; the ground is much the same, but from the continued floods of rain we had the water very quick. We are still driving by the side of the lode in the 20 fm. level, therefore cannot report any material alteration. I intend having the lode cut through in about a week.

HERODSFOOT.—The engine-shaft is sunk 9 fms. 2 ft. under the 127 fm. level; we purpose sinking another fathom, and then commence driving; the lode in the bottom of the shaft is large, composed of quartz, containing 12 cwts. of ore per fathom, and is improving; in the 127 fm. level, in the north end, the lode is easy for driving, and worth 10 cwts. of ore per fm. No. 1 stope, in the back of this level, is worth 10 cwts., and No. 2 6 cwts., of ore per fathom; in the south end the lode is at present but slightly productive. No. 1 stope is worth 10 cwts., No. 2, 9 cwts., and No. 3, 7 cwts. of ore per fathom. In the 117 fm. level the south end is suspended until a winze sinking is holed to the 127 fm. level. No. 1 stope, in the back of this level, is worth 5 cwts., No. 2, 4 cwts., and No. 3, 10 cwts. of ore per fm. The 106 fm. level south is being driven by the side of the lode; the stopes in the back of this level are worth 9 cwts. of ore per fathom. The 94 fm. level south is also driving by the side of the lode; there are two stopes in the back of this level—each being worth 14 cwts. of ore per fm. In the 82 fm. level we are driving south on the course of the lode, which is large, composed of hard quartz, and worth 20 cwts. of ore per fm. No. 1 stope is yielding 18 cwts., No. 2, 14 cwts., No. 3, 25 cwts., and No. 4, 14 cwts. of ore per fathom. In the 72 fm. level we are driving south by the side of the lode. No. 1 stope is worth 12 cwts., No. 2, 20 cwts., and No. 3, 7 cwts. of ore per fathom. Boase's shaft is still sinking in the country; and, as there appears to be a favourable change taking place in the ground, we think it desirable to sink further before cutting the lode, which we have no doubt is close to the shaft, as we have had some stones of lead and branches of mundic during the past month. The 72 end is letting down much more water than usual, and we hope will drain the lode at this point; so that there will be less risk of having more water in the shaft by delaying to cut the lode for another month. You will observe that the stopes generally are more productive than usual; and the mine, on the whole, is certainly looking better, and affords every prospect of becoming more profitable.

HOLMBUSH.—The ground in the engine-shaft, sinking below the 120 fm. level, is still favourable, and we think 2 fms. will be sunk this month, in addition to the steping down a piece of ground in the western end for plunger, &c. We are also getting on favourably with the plat, &c., in the 132 fm. level, and we believe the work promised to be done will be accomplished within the specified time, if not before. The lode in the 132 fm. level, west of the great cross-course, will produce 4 tons of copper ore per fm.; the lode in the stopes in the back of the level, near the cross-course, will produce 4 tons of ore per fathom. The flap-jack lode, in the 120 fm. level, east of the great cross-course, is 18 in. wide, producing stones of copper ore; the same remarks will apply to the lode in the rise above this level, where we are hourly expecting to hole to the winze sinking below the 100 fm. level, in which the lode is 12 in. wide, producing 2 tons of ore per fm. The lode in the 120 fm. level south is 4 ft. wide, composed of soft quartz, prian, and stones of lead; no lode has been taken down in the 120 fm. level west of the lead course for the last week; the wall of it looked well, being regular, hard, and with a face of mica on it, which has been generally proved to be a good indication for copper to the east of the lead lode. The flap-jack lode in the 100 fm. level, west of Wall's engine-shaft, is 3½ ft. wide, composed of mundic, spar, blende, and stones of ore; the same lode in the 100 fm. level, east of the great cross-course, is 4 ft. wide, and will produce 3 tons of ore per fm.; the lode in the eastern winze below this level is 2½ feet wide, producing about 3 tons of ore per fm. Every preparation necessary to be made underground and at surface for sinking Wall's shaft is being done as fast as possible.

KESWICK.—At Brandley, we have been making alterations in the pumping machinery, for the purpose of clearing the mine from the 10 fm. level downwards. The plan we have adopted has met with our expectations; but, owing to accidents and some delays, we have not as yet been able to effect our purpose, but hope in a short time to be at work in the lower levels. In the underground department there is not much alteration. The 10 fm. rise and stope are yielding good ore, and in a part of the Salt level we are stoping good ore. At Old Brandley we have a fine vein with ore, worth about 3 or 4 cwts. per fm., and have had ore for about 6 fms. in length; but do not expect any great quantity till we get more weight upon the vein. At Thornthwaite, we have worked out the bunch of ore on the string, and have cut through about 8 fms. of orey ground in the 27 fm. level. This pipe of ore is what we sank upon in the 17 fm. sump on vein, and we have had it in places 6 in. wide, of nearly solid ore. In the 10 fm. level south we have sunk upon a run of ore, which has in places yielded about 15 cwts. to the fm. The 17 fm. level south has been driven to cut the pipe of ore going down from the 10 fm. level, and we are now stoping the ore between the two levels. On the ore between the 17 fm. sump on vein and the 27 fm. level, we have two sets of men stoping. In concluding the report, I would beg to suggest the immediate sinking the shaft at Thornthwaite, as we have already gone through sufficient orey ground to warrant the outlay; and from the circumstance of pipes of ore increasing in length as we get downwards, we may fairly look for an extension of the orey ground.

KIRKCUDBRIGHTSHIRE.—In Stewart's 74 end west the lode is 18 inches wide, with stones of ore through it, yielding 4 cwts. of lead per fm. The lode in the winze, in the bottom of the 62 west, is 3 ft. wide, with stones of ore. In Gilpin's 62 end west the lode is 5 ft. wide, with good branches of ore through it, yielding half a ton per fm. We have put the men in the 50 end west to rise in the back of their end, to communicate with the 40 end for air. The lode in the 40 end west is still large, and very kindly, yielding from 8 to 10 cwts. of lead per fm.

LAMHEROOE.—I have been underground throughout the mine. I find the 50 fm. level, east end, containing a regular tin lode. The rise further, in the 60 fm. level, to this point, will ventilate the ground, and facilitate the raising of tin ore; upon its completion, we shall commence at once to rise to the 40 fm. level, and so on to the 30 and 20 fm. levels, as far as the tin continues. The end driving north in the 60 fathom level is in a hard channel of ground, which I believe is only temporary; the end is now driving by eight men, and is 40 fms. from the shaft. In the costeanings east of the cross-course, on the champion lode, we have opened on a large lode, containing a branch of 4 and 5 inches of rich tin ore. We have commenced to sink on this lode at this point, as we may expect from it very favourable results. The western, sinking on this lode, called Tabbe's shaft, we have discontinued for the time, and it would be more advantageous now to take this valuable part of the lode and sink on its course to meet the cross-cut in the 60 fm. level coming under it, for we have the probability of raising a great quantity of tin ore at the same time. Our prospects for tin being so much improved, I am at present busy with Capt. Opie making estimates, and looking over one that is tendered us for the erection of stamps and dressing-floors. A 25 or 30-feet water-wheel can easily be erected to command about 12 heads of stamps, and our calcining ovens we wish to arrange so as to save as much as possible the arsenic, by passing the fumes through arsenic chambers, previous to their being sent into our engine stack. We also wish to get the floors as near as possible to the engine-shaft, and where the ore is raised. The tin we have discovered in the champion lode is nearly pure oxide of tin, which can be easily dressed, whilst our first discovered tin has abundance of arsenic. I find the whim completed over Jessie's shaft on the B lode, and the water is now kept easily for the men to sink. We are taking a downright shaft gradually, leaving the lode to the north of us; we have about half of the lode now in the bottom of the shaft, and the other half is the killas, which is a clay-slate, buff coloured. As this may be an engine-shaft, we are

carrying it perpendicularly; and at the 10 and 20 fm. levels, we intend cross-cutting into and through the lode, which underlays very slight, and continues its regular course, about 6 ft. wide, stained with the black oxide of copper, and holding in places hard channels of mundic and quartz. The present south end, in the bottom of the shaft, has a rock of this vein, which I expect will disappear as we get to the 10 fm. and lower levels, and the entire lode change, from the disordered state in which it appears, to more regular orey ground; little branches and specks of yellow ore in the quartz stone, gave us some reason to expect a good yellow ore lode in depth.—ADAM MURRAY, jun.

LEWIS.—In the 90 fm. level there is no alteration since last reported. The new lode, in the 80 fm. level, west from sump-shaft, is 4 in. wide, producing good stones of tin. The north lode in the 80, east from tin shaft, is 18 in. wide, unproductive. The new lode in the 50, west from copper ore shaft, is in unsettled ground; ditto east from tin shaft, this lode is 6 in. wide, opening tribute ground. The new lode in the 40, east from tin shaft, is 10 in. wide, producing good work for tin; ditto west from copper ore shaft, this lode is 1 ft. wide, opening tribute ground; the south lode in this level, east of copper ore shaft, is 15 inches wide, quartz and capel, with encouraging appearances. The new lode in the rise in the back of the 30, west of copper ore shaft, is 1 ft. wide, opening tribute ground; ditto east from Praed's, this lode is 18 in. wide, not having been taken down since last reported. The new lode in the winze in the bottom of the 20, west of copper ore shaft, is 1 ft. wide, opening good tribute ground. We shall sample 30 tons of tin at the usual time.

LLWYNMALEES.—The 8 fm. level west is much as last reported. The 14 fm. level west is a very good lode. The stopes over the 8 fm. level, from 11 to 20 fms. west of western winze, do not look quite so well, and will soon be finished. In the 24 fm. level east we have a nice branch of ore; and in the western end of the plat, at bottom of London shaft, we find some good stones of ore. We have not sufficient room to put men to drive the 24 fm. level west until the plat is completed. There is a shoot of ore gone down from the adit level about 12 fms. east of the end of 14 fm. level east; I have, therefore, put two men to drive the 14 fm. level east, in which the lode appears to be getting stronger, and looks rather more promising than it did. The western winze is completed, and we are to-day drawing through it from the 14 fm. level. It will take us until next Friday to draw up all the stuff accumulated in the 14 fm. level (from the 14 fm. level, the rise, and the winze), after which we shall stope the back of the 14 fm. level, east and west of western winze. The engine has been working well during the week, and keeping the mine quite clear of water, although we have had a good deal of rain during that time.

MERLLYN.—The favourable weather, for some days past, has enabled us to proceed satisfactorily with our operations, and, suffice it to say, the mine is fast getting into a good state of working. With the whim at a very shallow depth of the mine, we are enabled to draw a great quantity of stuff, and which has been done this week. All the tribute pitches are producing ores beyond my expectations. The dressing floors are almost completed, and the dressing of the ores goes on satisfactorily. We shall shortly commence driving the two bottom levels, which will be laying open very good ore ground. The shaft will be delayed sinking a few days, to put in a penthouse, &c., but no time will be lost in getting in order to sink the shaft.

MILL POOL.—We have set the line of flat-rods to work on the Mill Poo Standard shaft, and they are working remarkably well. I am glad to say that the mine is looking better than I ever saw it before. We have a good lode of tin in the eastern and western ends in the 10 fm. level, and also an equally good lode in the shaft sinking down to the 20. We are raising sufficient tinstuff, of excellent quality, to keep all our stamps at work; and, although our operations have been commenced so very recently, we are even now more than paying the working cost of the mine. In the course of a short time we hope to reach the old bottoms on the Standard lode; and we have good reason to expect the most favourable results when this is accomplished. I hope to give you still better news at our account on Tuesday next, the 18th inst. I feel no hesitation in confirming my former statement, that Mill Pool Mine is one of the best which has been opened under similar circumstances in the western part of the county for years.

MODITONHAM AND MARRABOROUGH.—*Feb.* 11.—The north adit is looking just the same, excepting the ground having gone much harder, so that we do not want timber. I have put the miners to costean in the large field west of our workings, in hopes of cutting the lodes further west if possible. We have had two or three dry days, so that the field is in much better condition for costeaning than it has been for months.

— *Feb.* 13.—In costeaning in the field, west of our works, we have discovered a very large lode, composed of gossan and spar, with a strong wall of spar, capel, and killas on the north side of it, and beautiful light killas on the south: the lode is not less than 8 ft. wide, and a very strong-looking one it is. Its bearing is 45° south-east, and 45° north-west. I hope to let you know more about it in a few days. I think we had better sink a shaft to prove it a few fathoms deep.

NEW COPPER BOTTOM CONSOLS.—We have not as yet taken down all the lode against the cross-course, but as far as we have I am very much pleased, and have every reason to believe that it will be quite as well or better the other side.

NORTH BASSET.—The 52 fathom level has been extended east and west of Lyle's shaft, and is now 30 fms. west of the cross-cut; in this level the lode bears strong indications of producing larger quantities of ore at a greater depth; west of Lyle's shaft we have cut a cross-course, which will be of great advantage in enabling us to drive a cross-cut north and south to intersect other lodes in the sett. The lode in the 62 fm. level is in granite, and now 2 feet wide, grey and black ore, the backs of which may be worked at a low tribute; in the winze sinking below this level (within 20 fms. from the end) we have a beautiful course of ore from 3 to 4 feet wide. The 72 fm. level is also in granite; the lode in the end is now 4 feet wide, a course of grey and yellow ore; this end is now about 17 fms. from the winze sinking below the 62, in which is a splendid course of or. The backs west of the new shaft are now worked at tribute varying from 1s. 3d. to 2s. 6d. in the l*l*. The 82 fm. level is also in granite; the cross-cut has been driven south 12 fms. to the south lode; the level has been driven on the lode west 26 fms., the lode varying from 4 to 5 feet wide, and as soon as a winze can be got through the backs may be worked at a low tribute; in this level we have to drive about 10 fms. west to cut the cross-course, when we shall reach the rich course of ore gone down under the 72. Lyle's shaft is now 3 fms. below the 72, and nine men are still sinking at 26*l.* per fathom. The new shaft is now sunk 66 fms., and will be completed to the 72 in about a month; the sinking of this shaft has been very expensive from the 62, in consequence of our having had to secure a heavy piece of ground; more time has therefore been occupied in this work than could fairly have been calculated on; but, when completed, its advantages are apparent, being in the centre of the richest ore ground as yet discovered in the mine: we shall then not only be enabled to extend our operations, and materially increase our returns, but also raise the ores with greater facility and less expense. All our other operations also look exceeding well.

NORTH BULLER.—Since the engine commenced working, the men have sunk 2 fathoms in Louisa shaft, which is now down about 26 fms. from the surface; the ground is much the same as when last reported, still in a pretty light killas, such as we judge to be congenial to copper. The ground in the adit, driving east, remains without alteration. The engine continues to work well, and a strict regard to economy in every department is carried out. We have set all the out-door (or general) carpentry and sawing work of the mine for two months, at 7*l.* per month, but that does not include the finishing of engine-house; there are still two carpenters engaged there, and it will be complete in about a week. We have discharged all our surface labourers, except one man and a boy.

NORTH ROBERT.—Our adit level is looking very promising; the lode is 5 ft. wide, underlaying not more than 20 in. in a fm. (with two excellent smooth walls), and about 2 ft. above the bottom of the level we have excellent stones of ore, agreeable to the sample which I have forwarded to-day, and it appears that the lode is making ore in depth. Murchison's engine-shaft we set on Monday to six miners and three labourers, at 8*l.* per fm., and I hope we shall be able to sink until the machinery is got about.

SOUTH PLAIN WOOD.—Since my last report, the ground in Gabriel's engine-shaft is rather changed for the better, it being softer, with small strings of mundic. By the end of this month we shall be down 15 fms., when we shall drive cross-cuts north and south, to intersect Nicholson's and Camplin's lodes. We have stopped driving on the caunter lode, and put the men to work in different places on Nicholson's lode, which is very promising, it being from 2 to 3 feet wide, with good stones of ore, mundic, and peach; we cannot expect more at this shallow level, but it affords every promise for copper in depth; for the last two or three days we have been sinking in the bottom of the level, and I find the lode is much the same, but we cannot go much deeper on account of the water; I should propose driving a cross-cut to Collins's shaft, which is 12 fms. north of this level, by which we should take off all the top water and be enabled to continue the sinking of this shaft some 10 or 12 fms., when we would again drive a cross-cut to the lode; by so doing we shall be proving Nicholson's lode on both sides of the river—viz., from the cross-cut, from Gabriel's shaft, and Collin's shaft, at the same time. We have stopped sinking the engine-shaft on South Plain Wood, and commenced driving a cross-cut south, at the bottom of this shaft, to interect the caunter lode.

TAMAR SILVER-LEAD.—The 205 end is suspended for the present, and the men put to rise in order to make a communication to the winze sinking in the bottom of the 90 fm. level. In the 190 end the lode is 1 ft. wide, composed of spar, spotted with ore. In the 175 end the lode is 6 in. wide, good saving work. In the 160 end the lode is 3 ft. wide, producing work of a moderate quality. In the 145 end the lode is 18 in. wide, 6 in. of which is rich work. In the 160 fm. level, Spurgin's shaft, we have fixed a pent-house, and commenced cutting plat and other preliminaries, in order for sinking below this level. At the north mine, in the 90 fathom level, the lode is 1 foot wide, composed of capel, spar, and small strings of ore. In the 80 fathom level the lode is 6 inches wide, rich work. In the 70 fathom level the lode is 4½ feet wide, composed of capel, finor-spar, and ore, saving work; in the winze sinking in the bottom of this level the lode is 3 ft. wide, and yielding work of a profitable nature. We sampled on the 1st inst., computed 69 tons of rich silver-lead ores, samples of which have been sent to the different smelters, as usual.

TINCROFT.—Highburrow tin lode, at the engine-shaft, sinking under the 152 fm. level, is 6 ft. wide, worth 15*l.* per fm. In the 142 fm. level, east of Martin's east shaft, the lode is 4 ft. wide, worth 16*l.* per fm. In the 132 fm. level east the lode is 4 ft. wide, worth 40*l.* per fm.: in the winze sinking under this level the lode is 4 ft. wide, worth 14*l.* per fm. In the winze sinking under the 120 fm. level, the lode is 5 ft. wide, worth 15*l.* per fm. Chapple's lode, in the 120 fm. level, west of engine-shaft, is 4 feet wide, worth 15*l.* per fm. for tin and copper. In the winze sinking under the 100, west of Downright shaft, the lode is 5 ft. wide, worth 15*l.* per fathom for copper. In the winze sinking under the 90 west, the lode is 6 ft. wide, worth 18*l.* per fm. for copper. On Grout's lode, we are extending the 70 and 80 fm. levels on the south, or flookan part. At North Tincroft, the lode in the engine-shaft, sinking under the 110 fm. level, is 5 ft. wide, producing good stones of grey ore. In the 110 east the lode is 3 ft. wide, worth 12*l.* per fm. for copper. In the west end, same level, the lode is 4 ft. wide, worth 12*l.* per fm. In the 100 fathom level, east of Willoughby's shaft, the lode is 3 ft. wide, worth 10*l.* per fathom for tin and copper. In the 100 fm. level, west of engine shaft, the lode is 8 ft. wide, worth 20*l.* per fm. for copper. In the 90, east of Willoughby's, the lode is 3 ft. wide, worth 6*l.* per fm. for tin and copper. In the 90, west of engine-shaft, the lode is 3 ft. wide, worth 6*l.* per fm. In the winze sinking under the 90, on south lode, the lode is 3½ feet wide. East Pool lode, at Palmer's shaft, sinking under the 100 fm. level, is 3 ft. wide, producing stones of copper ore.

TRELEIGH CONSOLS.—Christoe Lode: In the 100 fathom level, west of Garden's, the lode is 15 in. wide, not much ore. In the 90 fm. level, west of ditto, the lode is 2 ft. wide, worth 12*l.* per fm.; in the stopes above this level the lode is 2 ft. wide, worth 16*l.* per fm. In the 70 fm. level, west of Garden's, there has been no lode taken down this week.—Parent Lode: Parent engine-shaft, below the 52 fm. level, we are sinking in the country. In the 30 fm. level, east of ditto, the men have been employed at surface this week about the stamps.—Middle Lode: The rise above the 40 fm. level, east of cross-cut, is suspended: the men will drive the 40 fm. level east next week. In the rise above the 40 fm. level, west of cross-cut, the lode is 15 in. wide, with stones of ore.

TRELOWETH.—Our sumpmen are about fixing the plunger-lift, which will be completed by the 14th inst., immediately after which we shall commence sinking below the 32 fm. level, and drive the 32 cross-cut south towards Penpon's and main lode.

TRELYON CONSOLS.—The tin lode in Wheal Venture 32 fm. level still continues very good, worth 30*l.* per fm.; and in the shaft, which is about 8 fms. deeper, it looks quite as well as ever. In Wheal Margery we have a good copper lode in the 60 fm. level; we shall set another tribute pitch there in a few days, and expect soon to cut the ore in the 30 fm. level, when we shall much increase our quantity. We shall sample full as much at the end of these two months as in the last, and our tin is increasing. The shareholders are confident that this will make a good mine, and there are but few shares to be had

TRESAVEAN.—The lode in the old east shaft, sinking below the 300 fm. level is 3 ft. wide, yielding stones of ore; the levels on this lode are unproductive. In the 75 fm. level, driving west on the north lode, we have a good bunch of ore, yielding 6 tons per fm.: we have a large promising lode in the winze sinking below this level, with some ore. We have sunk Devonshire shaft on this lode to the 40 fm. level, and have just commenced driving in this level; the lode here is 3 ft. wide, yielding 4 tons of ore per fm. In the adit level, driving east, the lode is unproductive. We have just commenced sinking a new shaft on this lode, and intend to intersect it in the 166 fm. level, north of Harvey's shaft.

TRETHELLAN.—Since last report, we have driven the 45 fm. level west on Magor's lode 12 fms.; lode 3 ft. wide, with stones of ore. In the 12 fm. level we have driven a cross-cut south, and intersected the old lode, which is 18 in wide, and will produce 1 ton of ore per fm. We are driving the 10 fm. level above adit; the lode is 18 in. wide, with stones of ore. Our pitches are much the same, and we expect to raise for the next two months 120 tons of ore.

TREVILLE.—The cross-cut was driven 5 fms. before we cut the lode, which was effected on the 7th inst.; since that date we have been cutting through the lode, and have to-day reached the western or foot-wall; it is full 7 ft. wide, and of the most flattering character, being composed of a little lead, spots of copper, flookan, spar (compact and friable) carbonate of iron and mundic, and I really expect to find the lode turn out well as we drive south, or under the large back of gossan seen in the adit level; the foot-wall is very soft, and will no doubt cause some trouble, as the whole of the water is coming from that side of the lode—the stratum under the lode is a beautiful soft killas. I have set the ends north and south to drive on the course of the lode at 3*l.* 10s. per fm. for the month. I hope by next post to be able to send you some first-rate stones of lead.

UNITED MINES (TAVISTOCK).—The work in the shaft is progresing very favourably. Arrangements are made for carrying on the future operations in the most vigorous manner, and every attention will be paid to economy and the most speedy development of the mineral wealth of these very fine lodes. The Rix-hill lode has, with the exception of a few feet, continued to be very rich, in driving eastward towards a boundary, from which the end is not far distant in this lode, on the 10th inst., there was a leader of tin 5 inches wide, and the remainder of the lode spotted with tin.

WEST DOWNS CONSOLS.—Since the last report the boiler has arrived and been refixed, the engine put to work, and the water got in fork. The men have resumed the driving of the cross-cut to intersect the lode in the 10 fm. level below the adit, which will be prosecuted with all vigour, as well as stamping the tin and preparing it for market.

WEST WHEAL JEWEL.—The 70 fathom level, west of Williams's cross-course, on Wheal Jewel lode, is worth 5*l.* per fm. In Carkeek's winze, sinking below this level, the lode is unproductive. The 57 fm. level, west of Hodges's cross-course, on Tolcarne tin lode, is worth 5*l.* per fm.; this level, east of cross-course, on same lode, is producing stones of tin. The rise in the back of the 57 fm. level, west of Hodges's cross-course, on the same lode, is worth 27*l.* per fm. The shallow adit level, west of Tregoning's shaft, on same lode, is worth 6*l.* per fm. The stopes west of Pryor's winze, in the back of the 12 fm. level, on same lode, are worth 9*l.* per fm. The stopes east of Tregoning's shaft, in the bottom of the 12 fm. level, on the same lode, are worth 27*l.* per fm. The stopes west of Tregoning's winze, in bottom of this level, are worth 23*l.* per fm. These stopes are working on tribute.

WEST WHEAL VIRGIN.—We are still sinking the engine-shaft. In my last report the shaft was 10 fms. under the 9 fm. level, and the improvement of our lode has caused us to sink 1 fm. deeper, which will be done this week. I have the pleasure this day (Feb. 10) to inform you that our lode never looked better than it now does. There is a good lode of tin going down in the bottom of the shaft. We shall sink this 6 ft., and then we shall begin to drive east and west of the engine-shaft, and sink again with all speed. There is a world of scope here before us, as I have said before. We have seven master tin lodes in the sett.

WHEAL ADAMS.—Although we have not yet reached the western wall of the quartzose lode in the 72, we have cut through the hornstone, and are now in the friable part, where it will produce 5 tons of lead per fm. The ground is more favourable for driving; but the water is not decreased. The 60 rise has been poor during the past week, as also has the 50 rise, but the orey part of the former has made an angle westerly, which we are now cutting into, and find it producing the usual quantity of saving work—the other too is improving. The stopes in the 40 north will produce about 10 cwts. of lead per fathom—no lode taken down in the end. We have continued driving the cross-cut west in the 28, and have consequently holed to the old level, which has been driven northerly about 2 ft. west of the lode; the lode, which is merely divided by a vein of slate, is 4 ft. wide, and will produce rather more than 1 ton of ore per fathom. We have driven by the side of the lode for a distance of 3 fms., and shall take the whole down in course of the week. The air in Wood's rise is bad, and the branch of ore becoming poor; we have suspended working, and placed the men with others to take down the lode just referred to. At Aller, we have cut through the lode or branches, and the end is now in a favourable state. As soon as we have driven 4 fms. further north, we purpose cross-cutting east and west. The stamping engine is completed, but the stamps attached are not yet finished—it will require about nine days to get it in proper order for working the 12 heads.

WHEAL AUGUSTA.—We have had, during the week, some splendid rocks of tin drawn to surface—some 4 cwts. each. It has been almost one person's time to show them to visitors. We have a very promising lode in the engine-shaft.

WHEAL CREBOR.—In giving you my report, I feel much pleasure in being able to say the lode in the rise above the 54 fm. level is looking well; it has been disordered by the intersection of different small cross-courses, but as far as risen, which is 5 fms., we have had a good lode, and intend dressing some of the work next week. The lode in the 40, driving towards the cross-course, is improving in size and appearance, although at present poor; we have about 2 fms. more to drive to cut the cross course; when the lode is again seen on the other side of it, we may expect a great change, as was the result in the level below. The lode in the 12 end, at Cock shaft, is much improved in size, and changed in its underlie; as we are near the east cross-course, I cannot yet report it as I could was it more settled. The other parts of the mine are nearly as last reported.

WHEAL DORA.—We are bringing up the lobby to our wheel-pit, and the men are getting on well; we are securing the shaft, which is down 7 fms., and shall commence sinking next week. In opening the ground north of our engine-shaft we cut a most promising copper lode, and are now sinking on it, full particulars of which I will send you in the course of a day or two.

WHEAL HAMLYN.—Our present prospects in going west on the caunter lode are much brighter than they were last week; the lode is 5 ft. wide, composed of a quantity of greens, peach, mundic, flookan, and sugary spar, with very rich specimens of yellow ore; the men have 2*l.* per fm. for driving: there is a quantity of water coming from the bottom of the end. According to the appearance of this mine I believe we shall have an extraordinary one.

WHEAL MARY ANN (LYDFORD).—The deep adit level, driving west on the course of the copper lode, is extended in the past week 5 feet, on a lode about 2½ feet wide, composed of copper, spar, peach, mundic, and spots of ore; we are rather disappointed in not being yet able to give you a more flattering report of this level; but, from the fact of two branches now dropping into the lode from the north, containing rich copper ore, we anticipate soon to be in a position to give you news of a lasting course of ore being cut—price per fm., 5*l.*

WHEAL MARY EMMA.—The lode is still producing very good tin. I think I never saw finer rocks than have been broken during the present week. I have directed the men to continue as they are, and in the course of a fortnight we shall be in a position to put men to sink the shaft on the lode, after which the returns will be increased. We have sampled 2 tons of tin, which I think will fetch a still higher price than the last parcel.

WHEAL PROVIDENCE (SOUTH SYDENHAM).—There is no alteration in the appearance of the lode since the last report. The stack is nearly completed. The bob and some other part of the castings are now on the mine, and the engineers will shortly commence their work.

WHEAL TOM (DEER PARK).—Our working operations here are going on with spirit. We have commenced our deep adit level on the great copper lode in the centre of the sett; we have taken up the adit so for the water that is proceeding from the lode to run over the wheel, which will be of great service, the stream being so powerful. The lode in the adit level is 4 ft. 6 in. wide, and a more promising one is not to be seen; it is composed of blue capels, mundic, gossan, and some spots of yellow copper ore—a splendid lode; the ground by the side of the lode is brown and white killas, of a soft nature, and altogether congenial for copper ore. The south lode, in sinking on, I see no alteration in since last reported on, being from 10 to 18 in. wide; the ground in sinking appears somewhat harder, but the lode continues to hold out its component parts—that is, wolfram and tin.

WHEAL TRELAWNY.—Since last report we have set the lift to work in Smith's shaft, and we are glad to say the water is forking in a satisfactory manner, it being now out to nearly the back of the 82 fm. level, and if all things go on well, we hope to get the whole of it out in no very long time, and the levels and shaft in full course of working. The water having been in, the deep levels are, of course, without alteration. In the 72 fm. level, north of Trelawny shaft, the lode is 3½ ft. wide, worth 9*l.* per fm. At the north mine, we expect to get Smith's shaft in course of sinking in a day or two. In the 55, north of ditto, the lode is 3 feet wide, worth 5*l.* per fm. In the 68, north of Trehane, the lode is much improved in appearance, and producing good stones of lead. The stopes in the back of the 72 are improved, and the others are much as usual. Our prospects, on the whole, are encouraging.

WHEAL TREMAYNE.—The boundary engine-shaft men have been engaged last week fixing a drawing lift in the 63 fm. level; they will resume the sinking of the shaft again this week. The branches in bottom of said shaft are disordered by floors of spar; they are now worth 20*l.* per fm. In the 63 fm. level, driving east of boundary shaft, on the engine lode, we have intersected the flookan, the lode home to which is 15 in. wide, worth 30*l.* per fm. The men are now engaged cross-cutting in the flookan, which has heaved the lode about 2 fms. In the 53 fm. level, driving east of ditto, on the engine lode, the lode is 1 ft. wide, worth 8*l.* per fm.; in the same level, driving east of Allan's shaft, on Allan's branch, the branch is worth 10*l.* per fm. The 45 fm. level, driving east of Allan's shaft, on the same branch, is worth 5*l.* per fm. At Laurie's shaft, on the north lode, in the 30 fathom level west, the lode is large and unproductive. In the adit level, driving east of middle whim shaft, on a north lode, the lode is disordered and poor. At Madron's shaft, on the south lode, in the 70 fm. level cross cut, driving east, the ground is good for driving, and is progressing favourably; ditto west, the lode is 2 fms. wide, opening tribute ground. In the 20 fm. level, east of Williams's engine-shaft, on a new lode, the men are engaged cutting through a cross lode, which has disordered the lode, and is poor. In consequence of the great increase of water, occasioned by the late falls of rain, we have been obliged to disengage our flat-rods, drawing at Painter's shaft on the south lode; we shall commence re-working the rods again as soon as the water will allow us to do so. At west whim-shaft, on the south lode, in a rise in the back of the 30 fm. level west, the lode is 1 ft. wide, producing stones of ore. Our tin tribute department is looking much the same as it has for some time past.

WHEAL UNY.—The men are still engaged putting in timber to secure the engine-shaft, and are getting on with it as fast as possible. In exploring the adit, in consequence of heavy falls of rain, we have unexpectedly met with expensive and dangerous ground, which has prevented us from going forward as we anticipated; but we have now determined to abandon it, and drive a new level a few fathoms alongside the old one; by so doing we calculate to save much timber and labour. The carpenters and blacksmiths are engaged about making a horse-whim for the old engine-shaft, which will be complete for fixing in about a fortnight. The men also are working at the surface, wheeling out foundation of engine-house, &c.

WHEAL VINCENT.—The prospects of the continuation of our tin are encouraging. The western end continues in the same course of tin; it is now 36 fms. west of the cross-cut; and having dialled the ground, I have arranged to sink a winze from the surface to meet the end at about 40 fms. from the cross-cut, so as to afford air and facilitate the stoping of the ore ground. The new shaft is about 3 fathoms below the 10 fm. level; a channel of hard ground is in the bottom at present, but I think it will disappear as we get nearer the lode. The late continuous rains have rendered it very difficult to keep this shaft and the levels drained, and the wheel being at so great a distance from its work, added to its being frequently water-logged, from the non-completion of the lobby, which the floods have choked up constantly by washing its loose sides down, has been often overpowered. These accidents, which I hope will not recur, have added much to our cost, and have prevented our returns being much greater, at least by one more ton of tin. I think I may say that our further costs, until our present exploration is carried out, and we are enabled to decide the position for a steam-engine, will not exceed 70*l.* to 80*l.* per month.

Feb. 11.—The engine-shaft is hard at present; it appears to be nothing but a floor going through the shaft; I hope to get through it very soon; also we have set a new winze to go down on the back of the west end, which will be good for air and drawing up the work. As soon as this winze is down, we shall commence stoping the back of this level east and west of the slide. The lode in the west end is much improved since last week, and the ground easier; the lode in this end is 3 ft. wide, and very good for tin; this long course of tin is likely to continue home to the great caunter lode, which is very good, and several fms. further west.

FOREIGN MINES.

ALTEN MINING ASSOCIATION.—Estimated produce for December:—

Mines.	Tons of Ore.	Per Cent.	Fine Copper.
Raipas	50	8	4·00
Old Mine	75	5	3·75
United Mines	7	5	0·35
Michell's	6	6	0·36
Total	138		8·46

Mining Report from the 22d Dec. 1850, to the 6th Jan. 1851.

Raipas.—Capt. Monk's report is as follows:—Nothing new has transpired in the mine worthy of remark since my report of the 21st Dec. last, which is solely to be attributed to the Christmas holidays intervening, over which we have no control, and which has caused a great loss of time; we hope, however, to make up partly in the present month. The prospects are good.

United Mines.—The tribute pitch under the 40 fm. level now yields remunerative returns, and the prospects are promising. The lode in the new level has somewhat deteriorated, but offers facilities for driving, and we are daily in expectation of an improvement. At Woodfall's no alteration is to be noted, and the tributers make fair returns.

Old Mine.—The eastern pitches, above the adit level, are not quite so productive. The lode in Slungi's sink is still regular and promising, but the ore is rather less than formerly. In the stope above Bergmester's sink the ground is harder, and the tributers are not making such favourable progress as heretofore, but the returns are still remunerative. The new sink to the north-east continues very promising, and yields ores of a good quality, but the tribute returns have been less than we expected, in consequence of the compact nature of the lode, and interruptions caused by the Christmas holidays. A slight improvement is visible in the sink to the south of Slungi's, but which as yet will not materially add to the returns. Next month, we hope, the produce at this mine will be increased. In the adit level, ground easy for driving, and the men making good progress.

Michell's.—No improvement is to be observed in this mine; the ground is hard, and the progress made in exploring the lode is, consequently, slow, but we trust the returns will prove remunerative. The adit level still continues good for driving, but without any signs of a lode at present.

QUÆNANGEN MINING ASSOCIATION:—

Quænangen, Jan. 6.—I have little to communicate on this occasion, the alteration since my last being very trifling. On the lode C, where eight men are driving on tribute, the ore has somewhat diminished within the last few days, so that we do not feel quite sure that it will this month produce 10 to 12 tons of ore; but as the lode continues regular and of the same size, we naturally hope that it will soon produce the same quantity of ore again: we have had similar changes previously. The working on the new lode is precisely as before, and prospects equally good. In the sink from the surface on lode A, we still have some ore, but none in the level on the same lode. The adit driving towards lode E continues much the same as before, although the stone has lately become somewhat harder, and, therefore, less favourable for driving; still, unless some greater changes should take place, we expect to advance 3 or 4 tons during these two months. Elsewhere we have no alteration to note. A great deal of snow has fallen lately, which makes it difficult to bring down ores—the reason we have so little at the shipping place.

LINARES MINES.—The following has been received from Capt. Curry:—

Pozo Ancho, Feb. 1.—San Thomas's engine-shaft is now sunk to a depth of 4 fms. below the 31 fm. level; our progress here may be considered satisfactory. The cross-cut driving south in the 45 fm. level, to come under this shaft, is also going on favourably, and we hope it will reach the bottom of the shaft at the end of the present month. Wilson's shaft is still sinking through a splendid lode, worth at present 6 tons of ore to a fathom, now down about 5½ fathoms below the 45. The 55 fm. level, driving west of San Anton winze, is also opening on a very productive lode, worth at present 4 to 5 tons per fm., and still going on to improve as we approach towards Wilson's shaft; this level, east of San Anton winze, has not been driven for the last fortnight, having had to take our Englishmen employed to do some timberwork that required immediate attention; however, we hope to resume operations here next month, and fully expect a fine lode in this level also on a very few feet more being laid open. Our 45 fm. level, east of Shaw's shaft, has improved latterly very much; in this we have now a large and promising lode, composed of soft spar and flookan, with fine lumps of lead, and every indication of a further improvement. Shaw's shaft is sinking on a large lode, but at present hard and unproductive, now about 8½ varas below the 45 fm. level. The 31 fathom level east, after passing through several fathoms of productive ground, has been struck into the old men's workings; we had not the least idea that the men of old had penetrated so deep into this part of the mine, as there are no persons here that remember this work having been done; to what extent these workings have been carried we are as yet unable to ascertain. We consider this to look well for our 45 fathom level, as the old men could never have gone much deeper than the 31 fm. level, having no machinery to drain the water. The cross-cut driving to the bottom of San Juan shaft is rather hard, consequently progress slow. Having but a few feet more to drive to communicate with this shaft, we hope a short time only will be required to accomplish it, when we shall be in a position to clear and lay open our 45 fm. level west of this shaft, where we have every reasonable hope of meeting with a great length of productive ground. I am happy to state that our tribute department still continues to look well. We now have 10 contracts, at an average tribute (according to our estimate of raising) of 29s. 6d. per ton, dressing included. Our raisings for Jan. are 125 tons, and we may safely calculate on 130 tons for the present month.

Lead ore in stock, Jan. 25, 279 tons; weighed in Feb. 1, 25 tons 5 cwts. = 304 tons 5 cwts.—sent for shipment, 34 tons 16 cwts.: remaining at Linares, 269 tons 9 cwts.; at Seville, 163 tons 9 cwts.: at Malaga, 59 tons; on board ship, 43 tons 8 cwts.: total quantity of ore in stock, 535 tons 6 cwts.

P.S.—The wet weather of yesterday afternoon prevented all the dressed ore from being weighed in, leaving about 12 tons unweighed.

LIGUANEA AND GENERAL MINING COMPANY OF JAMAICA.—This company, which has just entered the field of mining competition and enterprise, has been formed for developing the mineral wealth of the island of Jamaica, and especially the Liguanea district, which has long been reputed to possess a great extent of mineral riches of a valuable character. It appears that several varieties of rich copper and lead ore, impregnated with silver, have been lately discovered, although, up to the present time, from the exclusive attention given to the production of sugar and coffee, these discoveries have been almost wholly neglected. Latterly, however, increased attention has been directed to mining operations in Jamaica, owing to the researches made by enterprising Americans, and considerable investments have been made. It is in reference to these discoveries, apparently, that the new company has been formed—the favourable position of Jamaica, in connection with the events in progress in Central America, holding out a powerful temptation, from the certainty of a market for the mineral produce of the colony. For effecting the purposes contemplated by the company, it is considered that a capital of 12,000*l.*, in 1*l.* shares, is amply sufficient; and in the allotment of the shares, a preference, we observe, is to be given to the shareholders of the "Annotto Bay Mining Association," in the proportion of one to every two shares. The entire number of shares have been already applied for, and the company is announced as "provisionally registered."

GREAT POLGOOTH MINE.—This mine (the advertisement of which is in another column) has been known for ages, and has yielding immense returns. She is now in full work, returning large quantities of tin, and presents a legimate speculation, without the delays inseperable from new undertakings: she is now paying, and, managed economically and judiciously, will doubtless prove a profitable investment. She has seven steam-engines, ten water-wheels, power to return 80 tons of tin monthly, and every requisite machinery and plant for all purposes: 700 hands are now employed, and her present returns are about 1800*l.* monthly.

"A TREATISE ON BRITISH MINING."—Mr. Bartlett's treatise, noticed a few weeks since in our columns, has, we observe, attracted the attention and won for him the approval of two of our daily contemporaries, which we may regard as one indication, among others, of the increasing interest which mining is exciting. In proportion as mining becomes known, and its value appreciated as a means of investment, it is desirable that the general laws and regulations by which it is affected should be presented in a succinct shape, and rendered familiar to those who embark in such speculations. The majority of these laws have been founded on habits and immemorial customs, which have gradually constituted a code, now embodied under the name of the "Cost-book System," and "Stannaries Court Jurisdiction," and which, whatever incidental defects it may be chargeable with, seems admirably adapted to the habits and feelings of those among whom it has grown up. Mr. Bartlett, indeed, pronounces decidedly in favour of the Cost-book System, which "inculcates short accounts, and invests adventurers, individually and collectively, with the power of censorship, inspection, and withdrawal from the undertaking at pleasure, subject to only one month's liabilities, previously considered and consented to by each, and all;" and, if strictly adhered to, there cannot, he says, be conceived a safer, more convenient, and more effective union of interests for reproductive purposes. Mr. Bartlett does ample justice to the rough intelligence, shrewdness, and perseverance of the Cornish miner, at the same time advocating the necessity of a School of Mining, where he may become educated in this branch of science, and thus be enabled to combine what he learns with what he is acquiring in his daily task. At the present moment, a work of this kind, which contains a fund of knowledge directly available for those who embark in mining enterprise, is peculiarly deserving of recognition; and Mr. Bartlett, it must be admitted, in his general remarks on mining, its actual results and productive capabilities, as affecting the commercial industry and interests of the country, has placed the subject ably and attractively before the public.

MINING STATISTICS.

Tin Mines.	Fathoms deep.	Persons employed.	Years working.	Annual prod
Balloswidden	130	620	18	£26,000
Wheal Owles	160	300	17	10,500
Wheal Spearne	170	180	11	6,000
St. Ives Consols	200	400	33	15,000
Reath Consols	222	280	14	12,000
Providence Mines	150	230	20	10,000

BRYNTAIL MINE, CARDIGANSHIRE.—In the *Mining Journal*, of the 28th December last, we noticed that proceedings had been taken in the Court of Chancery against the proprietor and present workers of the Bryntail Mine, the claimant stating that he had a grant of the sett from the proprietor previous to the present workers entering on the property. The proceedings prayed for an injunction to prevent Mr. J. H. Smith, the purser, from working the mine, and Lord Cranworth, on Monday last, gave judgment in the case dismissing the petition with costs. He considered the motion to have been entirely misconceived. On looking at the agreement more leisurely than during the argument, his lordship found that the very circumstance had occurred which made that agreement void, and justifying the defendant in taking possession. It appears the proprietor had given notice to plaintiff, that although the latter had already forfeited his grant, he would give him to a certain day to renew the workings; that day was allowed to pass, and the present holders were put in possession. This decision puts the present lessees in full and undisturbed possession of the mine for the remainder of the term.

PENGELLY MINE.—In the Stannaries' Court, on Tuesday, an injunction was sought to be obtained to restrain Messrs. Coates and Gustard from working this mine, and carrying away tin. The case of Mr. Popham, the plaintiff, was that he had granted six months' trial of the mine, preparatory to granting a sett; but the time had expired in October last, and defendant still kept possession, worked in a most unminer-like manner, and continued picking out the eyes of the mine, without accounting to plaintiff for the proceeds. His Honour granted an injunction against the removal of the tin only, as he considered the parties trespassers, punishable at common law.

SHARE BARGAINS—EAST WHEAL LEISURE.—In the Stannaries' Court, on Tuesday, an action was brought by Mr. P. Blamey, of Gwennap, against Mr. William Jewell, of Perranzabuloe, for non-delivery of shares purchased. It appeared that the parties met in the coffee-room of Pearce's Royal Hotel, Truro, when defendant offered to sell plaintiff four shares in East Wheal Leisure Mine for 50*l.*, which terms were instantly closed with by plaintiff, but that since he had never been able to obtain the transfer, although he had tendered the usual certificate to Messrs. John Taylor and Son, the pursers. Evidence was given as to the bargain having been made, and that defendant afterwards offered a sovereign to be off the bargain. It appeared that a discovery was made during the night after the bargain, and the shares went up as high as 30*l.* each. The Vice-Warden, in summing up, made some remarks deprecating the gambling in shares, and left the case to the jury, who found a verdict for plaintiff —damages, 30*l.*

WHEAL REETH.—In the Stannaries' Court, Messrs. Harvey, of Hayle, sought to recover the sum of 503*l.* 13s. 9d., which was in an audited account of the mine in Sept., 1849, in which there appeared a balance in hand of 540*l.* 3s. 2d., of Mr. Joel Higgins, the present purser, and representing the adventurers. The case arose out of a bill transaction of 500*l.* negotiated by Messrs. Harvey, for Messrs. Batten, the former pursers of the mine; and it was contended by the defendant that Messrs. Harvey, in taking Batten's bill, discharged the mine from all further liability, particularly as they had received 300*l.* on Batten's composition. The plaintiff's defence was that at the time mentioned it was clear from the accounts that the pursers had no money in hand, but had acted as was the usual custom of the county by giving their acceptance. Evidence was put in to show that such was the practice, and that it was beneficial to mining proceedings; and that the bill, although accepted by the pursers, was considered as representing a claim on the adventurers. The case, not being completed, was postponed, and the Vice-Warden's judgment will be given in our next week's Journal.

WHEAL MARY ANN.—W. Daniels, who forged a receipt for 50*l.*, in the name of Mr. Bowes, a gentleman of Liskeard, and whose case has been noticed in the *Mining Journal*, was found guilty, and sentenced to 7 years transportation.

EMIGRATION OF MINERS.—A party of 25 miners from Illogan, Redruth, and Gwennap, sailed from Hayle for Bristol on Tuesday, to proceed to Swansea, where a vessel was waiting to convey them to Cuba. Most of them are engaged at 8*l.* per month; but some few are going out on speculation.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

CHYPRASE.—This mine is situate in St. Enoder, Cornwall, divided into 256 shares, on which 3*l.* have already been paid, and 25*l.* to 30*l.* is offered, without finding sellers. It is expected that not more than 5*l.* 5s. per share will be required before the mine will pay cost. The monthly reports of Capt. Michell are highly satisfactory, and in the last, of the 8th inst., he states the ground to look more promising than ever. This adventure appears undoubtedly a *bonâ fide* undertaking, and there is every prospect of a profitable result.

WEST WHEAL DAMSEL.—This mine is situated at the foot of Carn Marth Hill, and on the same run of lodes as have formerly proved so productive in Old Wheal Damsel, Wheal Squire, Wheal Jewel, &c. The operations are at present confined to the lode which was known in Old Wheal Damsel as Turtle's lode. A shaft has been sunk about 15 fms. from surface, through a lode varying from 2 to 2½ ft. wide, and from which has been raised one of the most beautiful gossans that has been seen in this neighbourhood for some time—a gossan that has never yet failed in producing a large deposit of ore. A 25-in. engine has been erected, and set to work on Monday last, the 10th inst., having been only five weeks three days from the time of the foundation stone of the house being laid to its being completed, and set to work; and, considering the interruptions occasioned by the almost incessant rain during last month, it may be stated as being the quickest job ever done in the county. This mine is divided into 256 shares—G. A. Michell, Esq., Rose Hill, Gwennap, being the purser and manager, to whom great credit is due for the very efficient manner in which the operations have been conducted.

NORTH WHEAL ALFRED.—This mine, which is divided into 512 shares, has been in work about 12 months. It is situate in the parish of Gwithian, near Hayle, Cornwall; the sett adjoins, and the workings are about three-quarters of a mile due north of Alfred Consols Mine—the main cross-course from which runs through the sett about midway between the old and new workings. About 30 years since a small engine was erected, and the shaft sunk 32 fms., when several very promising lodes were cut, and a quantity of copper ore raised of excellent quality; but the machinery being of insufficient power to keep the water, and the company not possessing adequate means to prosecute it further, the works were abandoned. The recent operations have been confined to clearing up and driving a cross-cut adit level, 400 fms. to hill, and sinking a shaft over a spot where the lodes, 10 in number, appear to reverse their underlay; it is 22 fms. deep, and will intersect the junction of the first two lodes at about 50 fms. deep. The two first south lodes were cut about 7 fms. deep; they are only about 3 fms. apart, underlaying north. A winze was sunk on them 3 fms., and a few tons of very fine lead raised of very excellent quality, valued at 14*l.* per ton. Nothing further was done in consequence of the water. These lodes are parallel with the others; and, although carrying lead on the backs, will, in all probability, prove to be copper in depth. They are in a beautiful light blue killas, and present a very promising appearance. Between these and the shaft four copper lodes, beside several branches, have been cut; and from the shaft to the end, which is 80 fms. north of it, four other very fine lodes have been intersected. There is yet one large champion lode a few fathoms in advance to be cut; but the driving is suspended in consequence of the air being very bad—no shaft having been put down in this distance. The lodes vary from 8 in. to 2 ft. thick, strongly impregnated with mundic and blende; they carry a fine spar, and contain beautiful stones of yellow copper ore, with traces of lead; their mean bearings are nearly east and west; so far as the indications of productiveness go, they may be said to possess everything a mine can desire. On the lode nearest the shaft levels have been extended 36 fathoms east, and 26 fms. west.; on the next lode, south of the shaft, 4 fms. east, and 6 fms. west. In these drivings no alteration in the general features of the lodes appear to take place; their character, therefore, appears confirmed. Between these workings and the old ones, which is a distance of 350 fms., the Alfred Consols cross-course comes in, and it is a prevailing opinion among the miners of the neighbourhood that at the junction, a few fathoms deeper, a large deposit of ore will be met with. From the evidence of some of the men who worked in the old mine about the year 1819, they had a lode nearly 10 ft. wide, and two others of a very productive kind, considering the depth, all containing excellent stones of ore, and which, at the present day, could be set on tribute. The present engine-shaft will intersect the first north and south lodes at their underlay junction in about 20 fms., and they appear very sanguine that good and profitable returns will be made at this point. Among the old rubble pile a considerable quantity of fine stones of ore are yet to be found, which sets any conjecture as to the quality of the lodes at rest. It will be necessary to erect a 60-in. engine, to develope the resources of the mine, which will put her down 100 fathoms. A mining surveyor has recently made a careful examination of the sett, and has given a very favourable report of its capabilities to the London shareholders, the consequence of which is that a large number of shares have changed hands, and a majority of which is now held by the London adventurers. A suggestion has recently been made to increase the number of shares, and to make a sufficient call to erect the necessary machinery, and put the mine in an efficient working state, which is estimated can be done for about 5000*l.* Altogether the mine presents a very flattering appearance, and if sufficient capital is provided, and the works conducted with patience, prudence, and economy, very little doubt remains of its proving a very profitable concern.

New Patents.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

W. E. Newton, of Chancery-lane, Middlesex, civil engineer, for improvements in apparatus for milking animals.

P. Fairbairn, of Leeds, machinist, and J. Hetherington, of Manchester, machinist, for certain improvements in mouldings for casting pipes, railings, gates, agricultural implements, and other metal articles, and also in preparing patterns or models for the same.

R. S. Norris, of Warrington, Lancaster, civil engineer, for certain improvements in the construction of the permanent way of railways, bridges, locks and other erections wholly or in part constructed of metal, also improvements in breaks for railway carriages.

J. Stephens, of the Allyards, Astley Abbotts, Salop, gentlemen, for certain improvements in threshing machinery.

J. H. Reed, late of the 17th Lancers, of the Harrow-road, gentlemen, for improvements in saddlery and harness.

J. H. Brown, of Fir-cottage, Putney, Surrey, gentleman, for certain improvements in the construction and building of ships, boats, buoys, rafts, and other vessels, and appliances for preserving life and property at sea.

Charles Xavier Thomas (de Colmar), Chevalier de la Legion d'Honneur, of Paris, France, for an improved calculating machine, which he calls "Arithmometer."

B. Heywood, of Water-street, Manchester, coach-builder, for certain improvements in railway and other carriages.

G. Briand, of Nicholas-lane, London, surveyor, and R. Fell, of the City-road, engineer, for improvements in obtaining fresh and pure water from salt, sea, and other waters.

C. Howland, of New York, America, engineer, for improvements in bell telegraphs.

A. M. Perkins, of Francis-street, Regent-square, Middlesex, for improvements in constructing and heating ovens.

J. Webster, of Leicester, engineer, for improvements in the construction and means of applying carriage and certain other springs.

W. Weild, of Manchester, engineer, for improvements in machinery for turning and burnishing.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

G. Taylor, Wolverhampton, self-correcting date clock.
Stock and Son, Birmingham, soil-pan service box.
W. Pulford, Boston, railway carriage roof candle-lamp.
J. S. Mackenzie, Newark-upon-Trent, triturator.
S. Salter, Watford, opening and valve for admitting air from the ash-pit of a furnace, so as to inflame the products beyond the bridge of such furnace.
W. and J. Sangster, Cheapside, apparatus for destroying insects on trees.
G. Knowles, Wood End, Scarborough, illuminating gas stove.
Carnell and Hosking, Perran Foundry, Cornwall, treble beat hydraulic valve.
C. F. T. Young, Stockleigh, Pomeroy, rotary boot and shoe-cleaner.
C. Hubert, Regent-street, shape for cutting the front and quarters of a boot in one piece.
H. A. Dewar, Aberdeen, hinged clasp for holding artificial teeth.
Roberts and Hall, Sheffield, toast-rack.
Wassall and Pitt, Birmingham, universal penholder.
J. H. Hutchinson, Grantham, sleeve lining for garments. [sea.
J. Macintosh, Robert-street, Adelphi, apparatus to be used to make boats more safe at
B. and J. Harcourt, Birmingham, match-box.—*Mechanics' Magazine.*

COMPANIES PROCEEDING UNDER THE WINDING-UP ACT.

BANWEN IRON COMPANY.—On Saturday Master Kindersley, who took the opinion of the shareholders present, determined that Mr. Adron (the official manager) should lay a case before counsel for advice, as to whether it was expedient to defend an action that had been brought against this estate for 600*l.*, salary alleged to be due to Mr. Harris, the secretary of the company.

NORTHERN COAL MINING COMPANY.—Lord Langdale has given judgment in the motion Ex parte William Bagge, made by the official manager to discharge an order made by the Master, who had held that Bagge was discharged from all liability as a contributory in respect of 260 shares in the company, and for a reference back to the Master, to review his report, and said he was of opinion that the motion must be refused, with costs.—Mr. Daniel said the costs of all parties must come out of the estate.—Mr. Roundell Palmer was afraid it must be so by the Act.

SEA, FIRE, AND LIFE INSURANCE COMPANY.—A further claim against this estate has been brought in by Mr. Ernest, the official manager, and Mr. Galsworthy, his solicitor, for 300*l.* on a bill of exchange, on the part of a creditor named Pratt.

ROYAL THAMES STEAM NAVIGATION.—The proceedings in this case on Thursday, before before Sir G. Rose, upon the first-class of contributories was proceeded with. It, curiously enough, contained the names only two individuals, one of whom had transferred his shares, and which transfer it was contended by Mr. Glasse, collector for the official manager, was good; but, inasmuch as the latter functionary could not find the register of transfer necessary to fix the individual in evidence, his Honour decided on striking him off the list, until the document was forthcoming.

COAL IN JANINA.—The French Government have received a report from their consular agent in Albania, that a species of fossil coal has been discovered in the neighbourhood of Delvino, about six leagues from the port of Agios-Saranta, opposite to Corfu, in a locality highly favourable for exploration and transport. An Austrian mining engineer has stated that it is an excellent quality of liguite, particularly applicable to steam-boat purposes. In other hands than the Turks' this, no doubt, could be worked with great advantage. It is probable that it will be found of considerable utility to the smiths and others, who now obtain their coal from the Ionian islands, at a heavy rate.

The immense lump of Welch coal (weighing between 3 and 4 tons), mentioned a fortnight since as being expected to arrive for the forthcoming Exhibition, was on Thursday disembarked from a collier brig in the Pool, and conveyed safely to the wharf of Messrs. Jones, Sells, and Co., Bankside, Southwark, and is an object of much curiosity to numerous visitors.

CAMERON'S COALBROOK STEAM COAL AND SWANSEA AND LOUGHOR RAILWAY.—The Standing Orders have been complied with for changing the name of this company to the Loughor Coal and Railway Company, and for extending the time for its completion to five years.

LONDON AND NORTH-WESTERN RAILWAY.—The accounts of the London and North-Western Company were issued on Friday, in anticipation of the half-yearly meeting on Friday next. They are extremely minute, and, being divided into classes, the exact financial position of the company may readily be ascertained. The general-balance sheet shows a disposable surplus profit, on the half-year, of 678,698*l.* 16s. 10d. The proposed dividend on the consolidated stock is 5½ per cent., and on the other shares in proportion; and it will absorb 527,407*l.* 13s. 5d., leaving a balance to the credit of the current half-year of 151,291*l.* 3s. 5d.

GREAT WESTERN RAILWAY.—The Standing Orders have been complied with for enabling this company to purchase, lease, or use the Wilts, Somerset, and Weymouth, the Gloucester and Dean Forest, and the South Wales Railways.

STOPPING TRAINS BY ELECTRICITY.—Two gentlemen in New York are exhibiting an invention for stopping railroad trains by electricity, dispensing with breaksmen entirely. This is effected by the arrangement of a galvanic battery on the locomotive, under the eye and hand of the engineer, with a rod running thence to each wheel in the train, connected with the different clogs or breaks, and to be connected with the battery by a touch, so as to apply, simultaneously and instantly, any desirable amount of pressure to every clog. It is computed that a train may be stopped in half the time now required, and with less jarring, jerking, or wrenching of the cars.

AN ELABORATE FILE.—A Sheffield file-forger has made a wonderful file for the Exhibition, with the teeth cut into a number of ornamental designs in different shades, according to the style or depth and size, &c., of the teeth. The article itself is of great size, being 54 inches long, 3½ broad, and ¾ thick, and weighing 28 lbs. Amongst the designs cut or engraved into its surface are a series of views representing the file manufacture, a sketch of the Exhibition building, and an inscription. The name of the maker, who was also the designer, is Hiram Younge, in the employment of Messrs. Carr, the Bailey-lane Works.—*Builder.*

GUTTA PERCHA WATER-PIPE.—A gutta percha pipe of 2½ in. calibre, and 1000 ft. in length, has been laid down for conveying the Croton water to Blackwell's Island, New York. The line extends from the foot of Seventyninth-street to the island, the depth of the water varying from 30 to 7 ft. The engineer first arranged his pipe in one length upon the island, and formed a line of 30 boats, well manned, across the river: he then gave his order at the commencement of slack water, and the end of the pipe was drawn across the river by men upon the opposite shore, and was taken up by the men in the boats, and 110 anchors, weighing 32 lbs. each, were attached to the pipe, being 10 ft. apart. By word of command, the men in the boats lowered at each point to suit the inequalities in the bed of the river, as ascertained by previous survey. This was all accomplished in 7½ minutes, without accident.—*New York Paper.*

ACCIDENTS.

West Bromwich—*Murder by Cutting a Rope.*—At the coroner's inquest on the boy Riley who, as noticed in last week's Journal, was killed at Old Field Colliery by some miscreants having cut the rope, the jury returned a verdict of "wilful murder against some person or persons unknown." From the evidence, there could be no doubt of the crime, and the ends of the rope gave symptoms of having first been jagged with a knife and then cut with a chisel. No clue, that we hear of, has yet been obtained to the perpetrators.

Wigan.—Thomas Brown was killed at Gidlow-lane Colliery, by a fall of roof.

Southwick.—M. Mackenzie was killed by an accidental explosion of a charge in a quarry where he was working.

Upholland.—Henry Aspinall, a lad, was killed in one of Earl Balcarras's coal pits, by a fall of roof.

Wigan.—A workman met with a violent death by the fall of a stone from the roof of Mr. Haleburton's colliery.

Derbyshire.—James Booth was recklessly descending a pit at the Heanor Colliery, the property of Mr. Fletcher, by sliding down the rope, when he slipped, and falling to the bottom, broke his leg and received other injuries.

Merthyr.—As T. Williams was trying the air at the Cwmbach Colliery, an explosion took place, by which he was so injured, that, after lingering two days, he expired.

Monmouth.—M. Gwillam was killed while employed in one of the Forest pits.

Current Prices of Stocks, Shares, & Metals.

MINES.—A lower range of prices exists this week, with scarcely an exception, for dividend mines. We trace this result, as before indicated, to this class of mines having been unusually sought after at the commencement of a brisk market, by which they were elevated beyond their natural or legitimate value as property for investment; the market is, therefore, at the present time, quite in favour of the buyer. In other mines a very preponderating business continues to be transacted, with a discrimination highly creditable to the majority of speculators; and in some of the progressing concerns we have a considerable rise in value again to note, founded on actual discoveries of ore.

In the Metal Market, Copper is in good request.—In English Tin, the demand for refined exceeds the supply, but bars and blocks are quiet; a good business has been done in Foreign, at steady prices.—Tin-plates continue to move off freely, at full prices.—Lead is firm.

The Keswick Mines sold 3 tons of lead ore, at 10*l.* 7s. 6d., and 12 tons at 10*l.* 17s. 6d. per ton.

The sale of black tin from Wheal Vincent went off well, and produced satisfactory prices: the amount realised was 90*l.* 14s. 2d., from which is to be deducted the dues, 1-15th, 6*l.* 0s. 11d.

The biddings for the Newtonard's lead ore, about 100 tons, varied from 9*l.* 12s. 6d. by Locke and Co., to that of Joseph Walker, Parker, and Co., 11*l.* 5s. 6d.

There were sold from Strontian Mine, at Bagillt, 60 tons of silver-lead ore, at 11*l.* 17s. per ton.

Tamar sold, in London, 69 tons of silver-lead ore, at 18*l.* 15s. per ton.

East Wheal Rose sold 133 tons of silver-lead ore, at from 14*l.* 1s. to 14*l.* 15s. per ton.

Herodsfoot sold, at Liskeard, 80 tons of silver-lead ore, at 12*l.* 8s. 6d.

Wheal Franco sampled 96 tons of ore at Lopwell, on Wednesday. They have got the water out of the bottom, and have commenced driving the 74 fathom level.

At Hawkmoor, 37 tons 12 cwts. of good quality ore were sampled on Tuesday last.

East Wheal George sampled, for the first time at Lopwell, on Wednesday week, 21 tons, dry weight, January ores.

Business has been done in East Wheal Russell at former high rates; and, as the engine will be erected, and the sinking of the shaft continued in a few days, the progress of the concern is looked to with great interest. A fact of great importance is, that the lode is so large (about 35 feet wide) and underlays so little, that the perpendicular shaft will be sunk in it to a depth of 40 fms.—thus proving the lode as they go down.

Crebors are still in demand, at advanced prices.

There have been a good many inquiries for North Wheal Roberts, and some transactions have taken place. Independent of its own merits, its proximity to the west of East Wheal George adds to its importance, the shares in which have changed hands at a high premium.

At Trethellan, they expect the next two months' produce to be 120 tons.

Court Grange sampled 24 tons of silver-lead ore on Wednesday.

They have now about 8 tons of copper ready at Daren, and sampled 10 tons of silver-lead on Wednesday.

Allt-y-Crib are dressing 9 tons of silver-lead per week; the air shaft is in capital ore, the end driving west still good, and the mines look well.

At Esgair-hir, the lode in the adit, with the tributers, is yielding 3 tons per fm.; they will dress 10 or 12 tons this month, from two men's working. It is believed there are thousands of tons of ore over the adit level.

At Bronfloyd, the lode of the tributers continues very good, and the deep adit driving east improving.

At Cwm Daren, the copper stopes are worth 6*l.* per fm., and the silver-lead stopes 12*l.* to 15*l.* per fm.

At Bwlch Consols, the lode in the 35 and 45 yields 1 ton per fm., and the 55 is improving; they are getting on well with the dressing.

At Cae-Gynon, the ore ground yields 10*l.* to 12*l.* worth of ore per fm.

In Lamheroe Mine very important improvements are announced; there is a regular tin lode in the 50 fm. level engine-shaft, and in costeaning at the surface on the champion lode, east of the cross-course, a large lode has been opened on, containing a branch of 4 or 5 in. rich tin ore.

A dividend of 6*l.* per share has been declared by Wheal Friendship.

The Lewis Mines declared a dividend of 10s. per share on Wednesday The next sampling is expected to be above 30 tons, which will leave a profit of upwards of 400*l.*

At the Wheal Seton meeting, on Monday, the accounts showed—Copper ores sold, Oct. 31 and Dec. 5 (less dues, 290*l.* 14s. 10d.), 4070*l.* 10s. 8d. —By mine cost, Nov., 1271*l.* 2s. 4d.; ditto, Dec., 1122*l.* 14s. 5d.; merchants' bills, 720*l.* 10s.—leaving profit, 956*l.* 3s. 11d.; to which add balance last account, 363*l.* 9s. 2d., and deduct dividend, 5*l.* per share (990*l.*), leaves balance to next account, 329*l.* 13s. 1d.—In the 110 fm. level the lode is 4 ft. wide, producing 1½ ton per fm.; east of the cross-cut, 6 ft. wide, 2 tons per fm. In the 100 fm. level, 6 tons per fm. In the 90 fm. level, 5 ft. wide, 1 ton per fm. The lode in the 80, on Tilly's shaft, 5 tons per fm. The mine generally appears favourable, and the ground congenial for copper.

At the Wheal Mary Ann meeting, on Wednesday, the accounts showed —Silver-lead ores sold to the Tamar Smelting Company, 90 tons 20 cwts., at 19*l.* 6s. 6d., 1757*l.* 13s.; ditto Locke and Co., 89 tons 14 cwts. 3 qrs., at 19*l.* 8s. 6d., 1742*l.* 9s. 4d.; ditto Pontifex and Co., 88 tons 9 cwts. 2 qrs., at 20*l.* 18s. 6d., 1850*l.* 17s. 4d.; ditto Tamar Company, 90 tons 5 cwts., at 9*l.* 1s. 6d., 818*l.* 18s. 2d.=6169*l.* 17s. 10d.—By labour cost, Sept., Oct., and Nov., 2879*l.* 5s. 10d.; lord's dues, 499*l.* 3s. 7d.; merchants' bills, 872*l.* 19s. 10s.: leaving profit, 1918*l.* 8s. 7d.; to which add balance last account, 900*l.* 4s. 1d., and deduct dividend, 3*l.* per share, leaves in hand 1282*l.* 12s. 8d. The report stated that the lode in the 70 fathom level, at Pollard's shaft, is 2½ ft. wide, but the water has been in for six weeks; it will, however, be drained in a few days. In the 60, the lode is 1 ft. wide, worth 5*l.* per fm.; in the winze under ditto, 2 ft. wide, 11*l.* per fm.; in the 50 south, 6*l.* per fm.; in the winze under ditto, 8*l.* per fm.; and in the 70, south of Barratt's shaft, 9*l.* per fm.

At Wheal Trelawny general meeting, held at Liskeard, on Tuesday, the accounts for Sept., Oct., and Nov., were presented, showing—Ores sold, 6565*l.* 6s. 6d.—By costs and merchants' bills, 5027*l.* 8s. 8d.: leaving profit, 1537*l.* 17s. 10d.; to which add balance last account, 926*l.* 2s. 2d.; deduct paid for engine, 550*l.*; Charles Trelawny, compensation, 120*l.*; and dividend, 50s. per share (1300*l.*), leaves balance to next account, 494*l.* Mr. West's offer, to render on the mine within one month a new boiler (10 tons), at 17*l.* per ton, was accepted. [The report is inserted among our Mining Correspondence.]

At the East Tamar Consols meeting, held on Wednesday last, the accounts showed—Silver-lead ores sold, January 24 and 28, 1791*l.* 1s. 5d.; fluor-spar ditto, 72*l.* 13s. 7d.; calls, 211*l.*=2074*l.* 15s.—By balance last account, 55*l.* 19s. 8d.; costs and merchants' bills, Nov., 579*l.* 10s. 9d.; ditto December, 570*l.* 17s. 4d.; sundries, 31*l.* 1s. 4d.—leaving balance in favour of adventurers, 837*l.* 5s. 11d. The estimated receipts and expenditure before the meeting to be held on 8th April next, would leave a balance in hand of 309*l.* 9s., which added to orea sold in Jan. and Feb., gives an available balance of 1239*l.* in favour of the company. The report stated that the 70 fm. level, north of Furzehill, yielded from 6 to 7 cwts. per fm. The 60 yielded 7 cwts. per fathom; the 60 south slightly productive. The 26, north of Church-lane shaft, is worth 8 cwts. of ore per fm. The tribute department was satisfactory, and notwithstanding the rainy weather, the sampling was only 2 tons less than last.

At the South Tamar two-monthly meeting, on Tuesday, the accounts showed a cash balance of 799*l.* 19s. 6d. in hand, and a balance of assets over liabilities of 1341*l.* 5s. 1d., out of which, however, 780*l.* are due in June for the stamps' engine. The report was very favourable, and stated the mine to be in a progressive state towards profits.

The Tywarnhayle and Nancekuke Mines account, passed on Tuesday, was—Balance against adventurers at last account, 409*l.* 8s. 5d.; Tywarnhayle cost, Nov. and Dec., 3594*l.* 5s. 10d.; Nancekuke cost, 445*l.* 5s. 5d.; sixth instalment paid the Duchy, 4000*l.*=8448*l.* 19s. 8d.—By copper ore sold, from Tywarnhayle, 2856*l.* 13s. 3d.; from Nancekuke, 518*l.* 17s. 4d.; lead ore from ditto, 176*l.* 12s. 3d.; seventh call, made 10th Dec., 5000*l.* =8552*l.* 2s. 10d.: leaving balance in hand, 103*l.* 3s. 2d.

At Dolcoath meeting, on Monday, the accounts for Nov. and December, showed—Balance from last account, 2704*l.* 9s. 1d.; costs and merchants' bills, 3491*l.* 19s. 9d.=6196*l.* 8s. 10d.—Ores sold (less dues), 3357*l.* 10s. 1d.; sundries, 244*l.* 16s. 4d.: leaving balance against mine, 2594*l.* 2s. 6d.

At South United meeting, on Tuesday, the accounts for Oct., Nov., Dec., and Jan. showed—Mine costs, &c., 271*l.* 10s. 5d.; by call made in Nov., 200*l.*: leaving balance against the mine of 72*l.* 10s. 5d.—A call of 1*l.* per share was made.

At the Nansegollan meeting, on Tuesday, the accounts showed—By call made 1st Nov., 320*l.*—Labour cost for Nov., Dec., and Jan., 154*l.* 12s. 7d.; merchants' bills, 139*l.* 19s. 9d.—leaving balance in hand, 25*l.* 7s. 8d.—A call of 2*l.* per share was made. An engine of 30-inch cylinder is to be erected, for which Capt. N. Vivian is empowered to treat. Messrs. Vincent and Vivian are appointed surgeons to the mine; Mr. Paul Burrall the engineer, and Mr. William Paul Jewell the clerk.

The Rhoswydol and Bachieddon bi-monthly accounts showed—Balance last account, 440*l.* 5s.; labour cost for Dec., 93*l.* 2s.; salaries 17*l.* 11s. 8d.; merchants' bills, 22*l.* 14s. 2d.; labour cost for Jan., 1851, 90*l.* 6s. 6d.; salaries, 17*l.* 11s. 8d.; merchants' bills, 20*l.* 19s. 9d.; interest, 16*l.* 6s. 9d.=718*l.* 17s. 6d.—By calls, 333*l.* 5s. 6d.; ores sold, 76*l.* 18s. 7d.: leaving balance against the mine, 308*l.* 13s. 5d.; to meet which there was lead ore estimated at 100*l.*, and arrears of calls, 54*l.* 17s. 6d. The report stated hat the hopes entertained by the agent of the results of the workings in Prosser's level had been realised. In approaching the north wall the lode became more orey, with a strong mixture of blende and lead ore, 12 in. wide on the wall, with a leader of solid ore 2 in. wide, and flakes of solid lead overlapping the killas; sufficient has not been opened to know the value of the lode, but so far it is saving work. The Smithy level has produced ore throughout its driving, and there are stoped and driven 81 fms. 4 ft. of ground, of which 19 fms. 5 ft. 6 in. are barren, leaving 61 fms. 4 ft. 6 in. of orey ground. A call of 1s. per share was made.

At the Dyfngwm bi-monthly meeting, on Wednesday, P. D. Hadow, Esq., in the chair, the accounts showed a balance in hand, of 392*l.* 10s; also, that there had been expended on productive work 176*l.* 10s.; and in sinking Castle shaft, and enlarging floors, about 92*l.* The agent's report was satisfactory—ths manager estimated that the works projected by him would be completed for about 300*l.* more. About 50 tons of ore had been raised in January and February, 11 tons of which had been shipped, and the remainder was in course of dressing. It was resolved to accept the "take-note" of the Bren-moel Mine, which had been offered to the Dyfngwm Company.

At the Moditonham and Marraborough Mine meeting, on Wednesday, the accounts showed—Balance last account, 66*l.* 14s. 6d.; call of 5s., made 12th Dec. (less arrears, 15*l.*), 241*l.* 6s.=308*l.* 0s. 6d.—Mine cost for Dec., 50*l.* 11s. 11d.; ditto Jan., 36*l.* 13s. 2d.: leaving balance in favour of adventurers, 220*l.* 15s. 5d. The committee were authorised to purchase and erect a steam-engine, for the part payment of which, and the requisite buildings, with the current expenses, a call of 3s. per share was made; and all shares are to be forfeited on which the last call of 5s. shall not be paid by the 1st March.

At the East Wheal Reeth meeting, on Wednesday, the report stated that there was an improvement in the 10 fm. end, there being a leader from the west which had changed the ground for the better. The shaft was cleared to that level, where another on the cross-course was discovered, full of stuff, and another south by the side of the cross-course, 24 fms. from the shaft, intended, no doubt, to cut the caunter and Wheal Reeth lodes. The ground is not hard—4*l.* 10s. per fm.—and it is hoped to attain the object in three months with the water-wheel, by which time the steam-engine will be erected. A discovery has been made in Wheal Reeth, going east towards this mine. It was resolved that the contract with Mr. J. H. Gray, C.E., be accepted, to meet which a call of 10s. per share was made.

At North Tolgus meeting, on Monday, a call of 2*l.* 10s. per share was made.

At the Butterdon meeting, held on Monday last, the accounts were presented, showing—Cost for Oct., 256*l.* 17s. 6d.; ditto Nov., 354*l.* 14s. 1d.; ditto Dec., 275*l.* 13s. 7d.; paid on account of engine, 300*l.*=1187*l.* 5s. 2d.—By balance last account, 45*l.* 7s. 7d.; calls, 645*l.*: leaving balance against adventurers, 496*l.* 17s. 7d. The mine was divided into 812 shares instead of 406, as heretofore, and a call of 1*l.* per share was made. The report stated that the stratum was very favourable, and that the lode was daily expected to be cut. Mr. John Phillips was appointed purser, at two guineas per month, Mr. Joseph Kemp as agent, at four guineas, and Mr. J. Barratt as clerk, at two guineas per month.

At Wheal Langford and Baring United meeting, the accounts showed a balance in hand of 744*l.* 4s. 9d. A very long report was read from Mr. Arthur Dean on the present position and future prospects of the property. The report of the committee stated that the large sett of Wheal Ashburton had been granted, which would now be worked in conjunction with Wheal Langford, under the above title. For a perusal of the proceedings, we refer to another column.

At the Wheal Arthur meeting the report of the committee was satisfactory; the old workings, which had cost the former company 20,000*l.*, had been cleared up for 287*l.* 8s. 7d. Two pitches had been set, at 10s. in 1*l.*, and a valuable and hitherto unknown lode had been discovered in the 50 fm. level. There was a balance in hand of 181*l.* 15s. 1d.

At the first meeting of adventurers in Chyprase Consols, held at Birmingham, the report of the provisional committee was adopted. Messrs. Parrish, Yates, Morgan, and Hinks, were elected on the committee for general management; Capt. James Michell, of St. Enoder, was appointed agent; Mr. Thomas Lewis, of Birmingham, purser; Messrs. Barker and Parrish, trustees; and the National Provincial Bank of England, bankers to the company. Capt. Michell's report stated that all the surface work was progressing satisfactorily—forge, carpenters' shops, 170 fms. of new leats, and the clearing up of 200 fathoms of old, erecting wheel, &c. The shaft was down 15 fms., being in size 9 ft. by 7 ft. It stated the indications to be equal to anything the writer ever saw, and believed the most sanguine expectations would be realised.

At South Wheal Frances meeting, on Thursday, it was resolved that the shares, which had previously been 124ths, should in future be 248ths.

A general meeting of the South Dolcoath adventurers will be held on the 4th March, when the affairs and position of the company is to be considered.

Despatches have been received from the Alten Mining Association, dated from Dec. 22d to Jan. 6. The estimated produce of fine copper for Dec. was—Raipas, 4·00 tons; Old Mine, 3·75 tons; United, 0·35 tons; Michell's, 0·36 tons= 8·46 tons. In the general workings there was no material change. The several mines were returning fair quantities of ore, although the Christmas holidays had somewhat encroached upon their regularity.

From Quænangen, also, there is no change to communicate. The working on the new lode continued good, and the prospects cheering. The C lode was not expected to produce more than 10 or 12 cwts. in the month; while from the adit from 3 to 4 tons was the estimate. A great deal of snow had fallen, preventing the carriage of the ore, which accounted for the small quantity at the shipping place.

The Linares report, dated Feb. 1, states that the engine-shaft is down 4 fms. below the 31 fm. level. Wilson's shaft is sinking on a splendid lode, producing 6 tons per fm. The 55, west of San Anton winze, is also in a productive lode, worth 4 or 5 tons per fm. The 45, east of Shaw's shaft, has improved. The tribute pitches continue to look exceedingly well, and there were 10 contracts, averaging 29s. 6d. per ton, driving included. The raisings for Jan. were 125 tons, and 130 for Feb. may safely be estimated. There remained in stock at Linares, 269 tons 9 cwts.; Seville, 163 tons 9 cwts.; Malaga, 59 tons; on board, 43 tons 8 cwts.—Total, 535 tons 6 cwts.

During the year 1850 there were produced at Freiberg, and the other smelting works of Saxony, 101,622¾ marks of fine silver, of the value of 1,387,701 thalers = 198,200*l.*; lead, litharge, and shot, 42,392 centners (about 2120 tons), of the value of 206,000 thalers=29,400*l.*; black copper, 1768 centner (86 tons), of the value of 43,896 thalers = 6280*l.*; arseniate of nickel, 431 centner (2½ tons), of the value of 28,318 thalers = 4000*l.*: making a total value of 237,880*l.* The returns of iron and coal have not yet been made up. The production of copper, it will be seen, is very inconsiderable; while that of silver is of some importance—a great quantity being extracted from native and other ores of silver, and some portion from lead.

HULL, THURSDAY.—MESSRS. T. W. Flint and Co. state that mining shares have been dealt in only to a moderate extent, but the market remains tolerably strong. Tremaynes are worth about 21*l.*; Wellingtons, 15½*l.* to 15¾*l.*; Alfreds, 15½*l.* to 16*l.*; Gustavus, 6*l.*; Trefusis, 17*l.* to 17½*l.*; West Tolgus, 5*l.*; St. Aubyn and Grylls, 5½*l.* to 5¾*l.*; Bedfords, 6¾*l.* to 7*l.*; South Tamar, 2*l.* to 2¼*l.*; East Tamar, 1¼*l.* to 1½*l.*; Merilyns, 4*l.* to 4½*l.*; Mollands, 3*l.* to 3½*l.*—For railway shares there has been a brisk demand, and price have almost, without exception, improved.

MINING APPOINTMENTS DURING FEBRUARY.

15. Pay at United, Fowey Consols, West Treasury, Nancegollan, and Cook's Kitchen
17. Condurrow account, on the mine.
18. East Pool account, on the mine.
19. North Roskear and other mines sampling.
20. Ticketing at Redruth, Devon Consols, and other mines.
21. Pay at Wheal Buller and Levant.
22. Pay at Great Consols, Comfort, Treviskey, Tywarnhayle, Agar, West Seton, Pendarves, Wheal Seton, West Alfred, and Copper Bottom, setting at Levant Mine,
25. North Pool account, on the mine.
26. Carn Brea and other mines sampling.
27. Ticketing at Lenderyou's Hotel, Truro—United and other mines.
28. Pay at Carn Brea, Tincroft, North Pool, East Pool, Wheal Ellen, Treleigh, South Tolgus, and Great Wheal Alfred; setting at East Crofty.

CORNISH STEAM-ENGINES.

[Abstract from Browne's *Cornish Engine Reporter*, from Dec. 20 to Jan. 20.

PUMPING-ENGINES.

Number reported	27
Average load per square inch on the piston, in lbs.	13·2
Average number of strokes per minute	5·9
Gallons of water drawn per minute	5798
Average duty of 20 engines—being million lbs. lifted 1 foot high, by the consumption of 1 cwt. of coals	65·2
Actual horse-power employed per minute	1236·3
Average consumption of coals per horse-power per hour, in lbs.	3·8

ROTARY-ENGINES—WHIMS.

Number reported	21
Number of kibbles drawn	66,291
Average depth of drawing, in fathoms	129·5
Average number of horse-whim kibbles drawn the average depth, by consuming 1 cwt. of coals	49·8
Average duty of 12 engines, as above	21·8

STAMPS.

Number reported	7
Average number of strokes per minute	10·4
Average duty of 6 engines, as above	46·3
Actual horse-power employed per minute	236·3

PUMPING-ENGINES DOING HIGHEST DUTY.

Fowey Consols	80-inch single	*Millions*	102·5
Par Consols	80-inch single		100·8
Great Polgooth	80-inch single		96·8
West Fowey Consols	60-inch single		83·1
Par Consols	72 and 36-inch Sims's combined		80·3
Callington	50-inch single		78·3
Stray Park	60-inch single		76·0
North Pool	50-inch single		70·7

WHIM-ENGINES.

Fowey Consols	22-inch double	*Millions*	31·7
Par Consols	24 & 13-inch Sims's combined		30·4
Par Consols	24-inch single		25·5
Fowey Consols	22-inch double		24·7
Great Polgooth	22-inch double		22·6
Trelawny	24 & 14-inch Sims's combined		21·6

STAMPING-ENGINES.

Tincroft	36-inch double	*Millions*	55·6
Great Polgooth	35-inch double		54·0
Lewis	52 and 28-inch Sims's combined		54.9

LATEST CURRENT PRICES OF METALS.

LONDON, FEBRUARY 14, 1851.

ENGLISH IRON. *a*	*per ton.*		
Bar, bolt, & square, London	£5 7 6–5 10		
Nail rods	6 0–6 5		
Hoops	7 0–7 5		
Sheets (singles)	7 12 6–7 17 6		
Bars, at Cardiff & Newport	4 15–4 17 6		
Refined metal, Wales*	3 5 0–3 15		
Do. anthracite*	3 10 0		
Pigs in Wales	3 0 0		
Do. do. forge	2 5 0–2 10		
Do., No. 1, Clyde ...*net cash*	2 2 6–2 3		
Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport*	3 10 0		
Do., do., for tin-plates, boiler plates, &c., ditto	4 10 0		
Stirling's Patent } in Glasgow	2 15 0		
Toughened Pigs } in Wales	3 10–3 15		
Staffordshire bars, at the works	5 7 6		
Rails	5 2 6		
Chairs (Clyde)	4 0 0		
FOREIGN IRON. *b*			
Swedish	11 15–12 0		
CCND	17 10 0		
PSI	—		
Gourieff	—		
Archangel	—		
FOREIGN STEEL. *c*			
Swedish keg	15 10 0		
Ditto faggot	15 0 0		
ENGLISH COPPER. *d*			
Sheets, sheathing, & bolts, *p. lb.*	0 0 9½		
Tough cake	*per ton* 84 0 0		
Tile	£83 0 0		
Old copper *e*	*per lb.* 8¾*d*		
Yellow Metal Sheathing	7¼*d* 7½*d*		
FOREIGN COPPER. *f*			
South American, in bond	77 0–87 0		
ENGLISH LEAD. *g*			
Pig	*per ton* 17 10 0		
Sheet	18 10 0		
Pipe	19 0 0		
Red lead	19 0 0		
White ditto	24 0 0		
Patent shot	20 10 0		
FOREIGN LEAD. *h*			
Spanish, in bond	17 10 0		
ENGLISH TIN. *i*			
Block	*per cwt.* 4 8 0		
Bar	4 9 0		
Refined	4 14 0		
FOREIGN TIN *k*			
Banca, H. C.	4 8 0		
Ditto, for Export only	—		
Straits	4 7 0		
TIN-PLATES. *l*			
IC Coke	*per box* 1 8 0		
IC Charcoal	1 12 6		
IX ditto	1 18 0		
SPELTER. *m*			
Plates, warehoused	*per ton* 16 5 0		
Ditto, to arrive	16 5 0		
ZINC. *n*			
English sheet	*per ton* 21 0 0		
QUICKSILVER *o*	*per lb.* 3*s.* 9*d.*		

WELCH BAR IRON is much firmer this week—most of the speculators' parcels have been bought off the market, and the principal makers being full of orders, are very indifferent about making sales at present prices, especially as each succeeding mail from the United States continues to bring large orders for rails.

STAFFORDSHIRE IRON is in fair demand.

SCOTCH PIGS are dull of sale; scarcely a transaction has taken place this week.

SWEDISH IRON.—Some small parcels have changed hands at 11*l.* 17s. 6d. and 12*l.*

SWEDISH STEEL.—Not any bargain has transpired.

COPPER is in good request.

BRITISH TIN.—A good business is doing in lots held by speculators, at a trifle under smelters' prices. Refined is still very scarce.

FOREIGN TIN is firmly held. In Banca a large amount is doing; buyers at 87*l.* 10s., sellers at 88*l.*; a considerable quantity has again been cleared for home consumption.

SPELTER is firm at 16*l.* 5s.—buyers; a small parcel has been sold at 16*l.* for spring shipment.

IN LEAD there are large orders for America.

TIN PLATES.—An extensive trade doing.

GLASGOW, FEB. 13.—The pig-iron market, which was very flat during the last week, has assumed a rather more cheerful aspect within the past few days; there is more inquiry, and prices are firmer—indeed, a small advance has been established. Mixed Nos., good brands, were bought to-day at 43s. per ton, cash, against immediate shipment, and warrants representing the same, free on board, are worth 43s. 9d. per ton. Malleable iron is in good demand, and the prices continue very firm:—

Bars, per ton	£5 10 to £6 0	Sheets	£7 10 to £8 0
Rails	5 15 to 6 5	Hoops	7 10 to 8 0
		Angle iron	£7 to £8.

	1850.	1851.
The shipments in January—		
Broomielaw, Port Dundas, and Kirkintilloch	9,475	16,548
East Coast	4,077	5,367
West Coast	5,299	6,739
Total tons	18,851	28,654
Increase in 1851	9,8 3 tons.	

LIVERPOOL, FEB. 13.—The market for manufactured iron of all kinds is active, and prices are well supported.—Pig-iron continues to be neglected, and price has further receded to 42s. to 42s. 3d. for mixed numbers, at which the market closes very heavily.—Tin-plates are in better demand, and command full prices.—Pig-lead is in demand, particularly for the American market, and some large parcels have found buyers at 17*l.* 5s.—Copper without change.

STAFFORDSHIRE.—We are happy to be able to report that the coal trade of this important district continues in the same good condition indicated last week. It is an excellent feature that the colliers and miners find full employment, the strike we alluded to in our last having happily terminated, and the men having for the most part returned to their labour, no doubt well satisfied that they had mistaken a sudden and temporary flush in the market for a permanent millenium of good trade and high prices, and that, consequently, their demand for an advance of wages was decidedly premature. The iron trade continues to maintain about the same aspect as previously reported, and in all its branches the operations betoken a decided improvement for the forthcoming season. The tin plate trade continues very good, and, happily for both the employers and the employed, the only complainings that reach us are those of the masters, who are overwhelmed with orders. In reference to our remarks last week about the iniquitous system of truck, we think it is only just to the iron and coalmasters west of Dudley to say, that for very many years past we have not been acquainted with the establishment of a single tommy shop in that district, except the one of Messrs. Oaks and Jones, at the Kettley Iron-Works, Kingswinford, a short time previous to their bankruptcy; and it is with no slight regret that we are unable to pay the same high compliment to the great manufacturers and coal proprietors east of Dudley. The latter, however, will, we trust, speedily and for ever wipe out from the records of the age this foul blot on their otherwise honourable escutcheon. —*Wolverhampton Herald.*

NEW YORK, JAN. 29.—The copper market is steady for the various descriptions.—Pig-lead is firm, and has commanded full prices; the sales are 60 tons Spanish, at 84 80c., four months, adding interest; 120 tons, 84 75c., cash; and 1000 pigs to arrive, supposed at the same price.—The iron market is active, and transactions pretty large; these are, however, restricted by the firmness of holders, and the enhanced rates demanded. We notice sales of 500 tons English bars at $40; 200 tons Bank's refined, $50; 600 to 700 tons Scotch pig, $21 to $21 50c.; 400 tons to arrive, at the latter rate; and 1000 packs Russia sheet, 12¼c. to 12½c., six months.

LEAD ORES.

TICKETINGS FOR ABOUT 100 TONS NEWTONARDS LEAD ORE.

Douglas, Isle of Man, February 12.

Bidders.	*Price per Ton.*
Walker, Parker, and Co.—Dee Bank (purchasers)	£11 5 6
Tamar Smelting Company—Beeralston	10 6 6
Thomas Somers—Bristol	10 5 6
Sims, Willyams, Nevill, and Co.—Llanelly	10 15 0
Newton, Keates, and Co.—Bagillt	10 17 6
John P. Eyton—Llanerchymor	10 18 6
Pontifex and Wood—London	9 13 0
Locke, Blackett, and Co.—Newcastle	9 12 6

Sold in London.

Keswick	3	£10	7	6	Locke, Blackett, & Co.
ditto	12	10	17	6	ditto
Tamar	69	18	15	0	Locke, Blackett, & Co.

Sold at Bagillt.

Strontian	60	£11	17	0	Walker, Parker, & Co.

Sold at the Mine.

East Wheal Rose	57	£14	15	0	Michell and Penpoll Co.
Ditto	40	14	4	0	ditto
Ditto	36	14	1	0	ditto

Sold at Liskeard.

Herodsfoot	80	£12	8	6	Tamar Smelting Co.

Tickstings at the White Horse Hotel, Holywell, on the 13th February.

Mines.	*Tons.*	*Price per Ton.*	*Purchasers.*
Maesyrerwddu (Talargoch Mine)	58	£11 11 6	Walker, Parker, & Co.
Coetia Llys ditto	36	12 10 0	Newton, Keates, & Co.
Hendre	15	11 7 0	ditto
Ditto	15	11 7 0	Walker, Parker, & Co.
Ditto	28	11 5 6	ditto
Ditto	8	11 5 6	ditto
Deep Level (Halkin Mine)	90	11 1 0	Mather and Co.
Talacre	40	12 6 6	Walker, Parker, & Co.
Lloc	50	12 7 6	Newton, Keates, & Co.
Pant-y-celyn	18	12 2 6	Walker, Parker, & Co.
Machynlleth	28½	12 0 0	ditto
Ditto	28½	12 0 0	Newton, Keates, & Co.
Ditto	56	12 0 6	Walker, Parker, & Co.
Caeconroy	22	13 18 6	ditto
Black Craig	20	9 12 6	ditto
Ditto	18	10 15 6	ditto
Dyfngwm	11	11 17 6	Newton, Keates, & Co.
Rhoswyddol	9	11 7 6	ditto
Total	551 tons.		

BLACK TIN

Sold on the 7th of February,

Mines.	*Cwts.*	*qr.*	*lbs.*	*Price per Ton.*	*Amount.*	*Purchasers.*
Wheal Vincent	2	2	9	£57 0 0	£7 7 1	L.C. & W. Daubuz
ditto	1	2	17	41 0 0	3 7 8	ditto
ditto	18	0	6	47 0 0	42 8 6	ditto
ditto	11	2	24	45 0 0	26 7 1	ditto
ditto	8	3	23	25 0 0	11 3 10	ditto

Total—42 cwts. 3 qrs. 23 lbs.—Amount of money, £90 14s. 2d.

COPPER ORES.

Sampled January 22, *and Sold at Swansea, February* 11, 1851.

Mines.	*Tons.*	*Prod.*	*Price.*	*Mines.*	*Tons.*	*Prod.*	*Price.*
Cobre	110	16½	£12 0 0	Cobre	56	23¾	£17 19 0
ditto	105	15¾	11 17 0	ditto	31	20¾	15 5 6
ditto	77	15¾	11 10 6	Santiago	72	8¾	6 3 6
ditto	57	15¼	11 7 0	ditto	54	7	4 19 0
ditto	68	25½	18 6 0	ditto	48	19¾	14 6 0
ditto	59	25½	18 17 6	ditto	40	19	14 9 0
ditto	58	25¾	18 13 0	ditto	67	13	9 7 0
ditto	55	25¼	18 13 0	ditto	58	13¼	9 9 0
ditto	54	24¾	18 1 6	ditto	46	14¼	10 0 0
ditto	48	24¾	17 18 0	ditto	48	22¼	17 1 6
ditto	35	23¾	17 17 6	Cuba	95	13	9 5 6
ditto	107	16¼	12 6 0	West Kaw-aw	48	9	6 4 6
ditto	67	24¼	18 2 6	ditto	42	9	5 17 9
ditto	63	24¼	18 3 0	Berehaven	79	11¾	8 12 0
ditto	8	20¼	15 3 6	Kaw-aw	4	6	4 15 0
ditto	6	74¼	56 2 0	ditto	3	8¾	5 19 0
ditto	78	16¼	12 10 0				

TOTAL PRODUCE.

Cobre	1142	£17603	8 6	West Kaw-aw	90	£544	10 0
Santiago	433	4430	9 0	Berehaven	79	679	8 0
Cuba	95	881	2 6	Kaw-aw	7	36	17 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
English Copper Company	264	£3320 12 0
Grenfell and Sons	239	2971 9 0
Sims, Willyams, and Co.	222	2657 12 6
Vivian and Sons	478	5396 9 0
Williams, Foster, and Co.	493	6875 12 6
Mines Royal	67	1214 7 6
Schneider and Co.	83	1539 12 6
Total	1846	£24,175 15 0

Copper Ores for Sale Feb. 25.—Cobre 106, ditto 88, ditto 70, ditto 60, ditto 58, ditto 51 ditto 48, ditto 17, ditto 54, ditto 18, ditto 9, ditto 56—Cuba 105, ditto 72, ditto 71, ditto 59, ditto 55, ditto 49, ditto 28, ditto 6, ditto 6—German Ore 57, ditto 34, ditto 19—Forest Slag 45—Lackamore 40.—Total, 1281 tons (21-cwts.)

AVERAGES.

	Produce.	Price.	Standard.
British	11¾	£ 8 12 0	£91 8 6
Foreign	18	13 6 0	86 1 0
Sale	17¾	£13 2 0	£86 4 0

Totals—British 79; Foreign, 1767 = 1846 tons (21-cwts.)

AVERAGES OF LAST SALE.

	Produce.	Price.	Standard.
British	8	£ 5 16 6	£100 0 0
Foreign	14¾	10 15 10	88 8 0
Sale	14¾	£10 7 0	£88 19 6

Totals—British, 192; Foreign, 1975 = 2167 tons (21 cwts.)

COPPER ORES.

Sampled Jan. 29, *and Sold at Andrew's Hotel, Redruth, Feb.* 13.

Mines.	*Tons.*	*Price.*	*Mines.*	*Tons.*	*Price.*
Carn Brea	100	£5 16 0	Alfred Consols	52	£5 18 6
ditto	97	5 9 0	ditto	30	12 17 0
ditto	96	4 3 0	Levant	91	2 2 0
ditto	86	4 17 0	ditto	42	8 5 0
ditto	76	4 7 0	ditto	38	4 15 0
ditto	75	11 4 6	Wellington Mines	62	6 11 0
ditto	63	4 5 0	ditto	60	3 4 6
ditto	54	1 15 0	ditto	43	5 13 0
ditto	42	4 0 6	Polberro	80	2 19 0
ditto	39	5 7 0	ditto	64	3 1 0
Tywarnhayle	102	2 11 6	West Wh. Treasury	50	3 18 0
ditto	96	3 5 6	ditto	49	5 8 0
ditto	95	3 10 0	ditto	42	7 15 0
ditto	70	4 8 0	Wh. Tremayne	60	4 15 6
ditto	48	4 2 6	ditto	57	2 18 0
ditto	47	1 6 0	West Wheal Seton	62	4 14 0
ditto	30	9 3 6	ditto	53	3 12 0
ditto	19	2 18 0	Wheal Agar	55	4 10 6
ditto	18	2 9 6	East Godolphin	29	4 11 6
Nancekuke	41	3 14 0	ditto	23	1 13 0
ditto	12	1 8 0	St. Aub. & Grylls	23	4 5 0
Wheal Buller	98	5 1 0	ditto	10	8 14 6
ditto	92	12 18 6	W. Wh. Providence	27	9 14 6
ditto	74	7 1 6	ditto	1	15 1 6
ditto	73	5 12 0	Wheal Vyvyan	13	2 4 0
Par Consols	80	6 13 0	ditto	7	8 0 0
ditto	78	7 18 6	East Wh. Treasury	14	3 7 6
ditto	65	6 5 6	Copper House Slag	13	0 3 6
ditto	53	10 7 0	Wheal Friendship	6	2 7 0
Alfred Consols	87	4 18 6	ditto	5	3 9 0
ditto	66	5 16 6	Wh. Susan	7	6 0 0

TOTAL PRODUCE.

Carn Brea	728	£3836	11 6	West Wh. Seton	115	£482	4 0
Tywarnhayle & Nancekuke	578	2020	1 0	Wh. Agar	55	248	17 6
				East Godolphin	52	170	12 6
Wh. Buller	337	2616	7 0	St. Aub. & Grylls	33	185	0 0
Par Consols	276	2106	16 6	W. Wh. Providence	28	277	13 0
Alfred Consols	235	1506	10 6	Wh. Vyvyan	20	84	12 0
Levant	171	718	2 0	East Wh. Treasury	14	47	5 0
Wellington Mines	165	842	11 0	Copper House slag	13	2	5 6
Polberro	144	431	4 0	Wh. Friendship	11	31	7 0
West Wh. Treasury	141	785	2 0	Wh. Susan	7	42	0 0
Wh. Tremayne	117	451	16 0				

Average Standard ..... £100 17 0 | Average Produce 7¾
Average Price per ton £6 4 0
Quantity of Ore ..... 3240 tons | Quantity of Fine Copper, 255 tons 14 cwts.
Amount of Money £16,886 18 0
LAST SALE.—Average Standard ..... £104 15 0.—Average Produce 6¾
Standard of corresponding sale last month, 104*l.* 18s.—Produce, 8¾.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	207	£999 18 0
Vivian and Sons	549	3030 11 1
Freeman and Co.	524	2434 0 10
Greenfell and Sons	428	2284 1 6
Crown Company	69	391 14 9
Sims, Willyams, and Co.	434	2947 16 4
Williams, Foster, and Co.	600	3385 18 0
Schneider and Co.	264	1399 2 0
Mason and Elkington	165	783 15 6
Total tons	3240	£16,886 18 0

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcels.—Devon Great Consols, Wheal Josiah, Wheal Maria, Wheal Fanny, and Wheal Anna Maria, 1519—West Caradon 309—Marke Valley 260—Fowey Consols 220—Wheal Friendship 193—Holmbush 193—Phœnix Mines 143—Bedford United Mines 140—West Wheal Jewel 42—Tamar Company's regulus 20—Wheal Gorland 18.—Total, 3057 tons.

Copper ores for sale on Thursday week, at Lenderyou's Hotel, Truro.—Mines and Parcels.—United Mines 742—Tresavean 345—Wheal Comfort 301—Par Consols 261—South Tolgus 224—South Caradon 204—Treleigh Consols 125—Wheal Mary (Redruth) 87—West Wheal Basset 46—East Wheal Rose 42—Wheal Clifford 13—Richards's ore 11—Wheal Union 5.—Total quantity of ore to be sold, 2406 tons.

NOTICES TO CORRESPONDENTS.

a few weeks we shall publish the commencement of a SERIES OF PAPERS, to be continued weekly, detailing

The History of Mining,

ITS RISE AND PROGRESS:

together with NOTICES of the EARLY METHODS OF WORKING; ANCIENT and MODERN INVENTIONS, with their subsequent IMPROVEMENTS; comprising also

A SKETCH OF METALLURGICAL OPERATIONS,

from the EARLIEST PERIOD to the PRESENT TIME.

The Great Exhibition.

In the "MINING JOURNAL" will also be given a detailed description, with all necessary illustrations, of every object connected with MINING and ENGINEERING, which may be produced at the forthcoming Great Exhibition.

The Compendium of British Mining,

BY J. Y. WATSON, ESQ., F.G.S.

We have the pleasure to announce, that Mr. WATSON has consented to revise and correct, to the present time, his interesting EPITOME OF BRITISH MINES, for re-publication in the "Compendium of British Mining," it will be remembered, the actual position of location in our columns—the sixth portion of which appears in last week's Journal. In the different mines is accurately described, both as to capital and working.

At the end of each year, a copious Index is published, which renders the volume an interesting and valuable record.

"W. A." (Hammersmith).—We think our correspondent takes a very erroneous view of the principle on which the value of mining shares is, or should be, regulated. It is quite true that mines paying similar dividends, with an equally large paid-up capital, differ considerably in price, and are subject to different fluctuations in the market; but this arises from the varying circumstances of the mine, nature of the strata, ore ground in sight, character of the lode, state of the finances, &c. The sale of a house, a farm, or a horse, is by no means a happy similitude: these are commodities which bear a fixed and almost certain value; whereas, in the case of a mine, the results of a blast of gunpowder, the stroke of the pick, or even a rumour, may at any moment alter most materially the commercial value of the shares. Even should a party, from momentary pressure, be obliged to sell shares at less than the estimated worth, it does not follow that the general market value should be reduced, nor do we ever find such to be the case. We do not see that any importance attaches to the observation, as to which page of our Journal the Share List is placed in.

"B. K." (Leeds).—Porphyry is not much used in this country, but is successfully worked in Sweden, first with the pick and chisels, and afterwards by grinding it into form with emery and water, applied through the medium of heavy rubbers, also of porphyry. As in other cases, it is needful to employ a gradual succession of emery as to coarseness. It is probable, the final polish is obtained by rubbers of wood with flour emery, and wood covered with buff or felt, and fed with crocus, much the same as in the treatment known to be applied to granite. From the homogenity of porphyry, it is less difficult to manage than granite; but they each demand great time and patience. The elvans of Cornwall require similar treatment to porphyry and granite, between which they are systematically placed.

"Z." (St. Austell).—The matter should be brought forward at the next meeting, that an opportunity may be afforded for explanation.

THE QUADRATURE OF THE CIRCLE.—A Mr. Peters, of Brighton, has published a tract on the quadrature of the circle, or the exact proportion that the circle bears to a surrounding square, touching it in four points. This is a question which has raised discussions amongst mathameticians and algebraists since the time of Euclid, without eliciting, we think, any decided rule for arriving at the exact proportions; for, like the comparative values of the diameter to the circumference of the circle, which Van Cuelen carried to 36 places of decimals without getting the true result, which figures are engraven on his tombstone in Leyden Churchyard, those between the circle and its accompanying square have never been determined. It is true that four-fifths is *about* the proportion, and near enough for all common purposes. Mr. Peters, from his calculations, however assumes that it is "actually, accurately, and exactly, *not nearly*," four-fifths of the circumscribing square. How far he is correct, we must leave to mathematicians to judge.

"A Young Smelter" (Limehouse).—There are difficulties in the way of getting at a standard for lead ores, which are not easy to surmount. Leaving out minor points, there is one which appears insurmountable, unless a double standard for lead and silver could be adopted; and even this could not be easily accomplished. Copper ores generally contain no silver of value; but the larger bulk of lead ores contain some silver, varying from ½ oz. to hundreds of ounces to the ton. Nine-tenths of all the lead ore brought to market is worth something for silver, and this renders it difficult, if not impossible, to give the standard of lead upon the different lots, as is done with regard to copper.

HEATH'S PATENT—THE PATENT LAWS.—Although the fifth communication on this certainly important subject, by our valued correspondent, Mr. David Mushet, has been in type since the first week in the present year, No. 4 having appeared in our Journal of the 28th December last, an unusual and continued press of matter has, greatly to our regret, prevented its insertion. We have during the past week, upon the heels of No. 5, received a very long continuation of the same subject; and however we may be doing violence to our inclinations, we find the only way in which we can do justice to the subject, and clear up some of the arrears of matter in which we are involved, is to give the most important and pointed views of the case; and this is the less to be regretted, as the principles of the patent, and the public interests involved, have been so ably discussed in the previous papers. One of the principal topics in the communication before us is the capability of the present courts to deal with patent cases, and the desirability of the erection of an especial court for the purpose. Mr. Mushet thinks, if such a court is established, it ought to rank with the existing superior courts. At present the judges are overworked, having to supply justice to 20,000,000 of human beings from the same source as formerly sufficed for two. The complicated amount of commercial and manufacturing relations, and the art of useful invention, have attained such a magnitude, as would well warrant the addition of a fourth law court, devoted especially to patent pleas: such a court, whether under one judge or more, would have time to study not merely the old law, but to get such acquaintance with details of science and mechanics, that, when a cause came before it, there would be no chance of an erroneous decision arising from ignorance of mere rudiments. The bar would have a stimulus to qualify itself for promotion to the bench of that court: and thence would be scattered amongst the whole profession an increased familiarity with subjects which are every year obtaining a greater proportional value to that which was originally, at the beginning of our system of jurisprudence, nearly the sole property, and in respect to which it is mainly founded—property in land. Of the injustice done the patentee in this remarkable case, it is shown that Mr. Heath purchased of the Crown for the sum of 400*l.*, or thereabouts, the protection of its courts of justice in the exercise of a process which was his sole property. Whether the honour and dignity of the Crown would be more or less consulted by not thus selling protection, or whether such sale be an infringement of another promise comprised in the same Great Deed, it is not necessary to stay now to discuss. The fact is undoubted that Mr. Heath, as every other patentee, had paid a round sum of money to the Crown for the protection of the law. The honour of the Crown is, therefore, specially involved in the patentee receiving the justice he has bought. The judges become doubly false to their trust, if, under the binding force of this special contract, they lightly set it aside. He has paid a sum upon the faith of the high contracting party, and he is denied his equivalent. The last portion of the subject, which we have received, would of itself make three or four columns in the Journal, and while it fully enters into an examination of the arguments made use of to support the decision of the judges, and discusses most lucidly the merits of the case, it is still very far from appreciable by the general reader; and, as we have before observed, we regret the necessity of its exclusion, in consequence of a continual influx of matter of general interest, though unequal in ability and depth of reasoning.

PATENT LAW REFORM.—We have received a letter from Mr. David Mushet, in reply to "T. W." on this subject, which, anxious as we are to insert his communication, we must, however we regret it, for reasons repeated elsewhere—want of space—decline its insertion. There is one point therein, however, of such paramount importance, that we must allude to it—giving a patentee the power to amend his specification. To draw a perfect one in the first instance is an impossibility: Messrs. Fourdrinier lost their great invention for the manufacture of endless paper through the omission of the letter "s"—"machine" being inadvertently inserted for "machines." The pirates went to work—a party the writer describes as far more accursed than the wretched criminals who hang from time to time before the walls of Newgate. Protracted litigation ensued, and the inventors, who had expended 40,000*l.* upon their machines, were rendered bankrupt ere their right could be decided; a result so deplorable, that it is impossible to find words to convey a sufficiently contemptible idea of such a helpless cripple as the law of protection (?) must be.—In a communication on this subject, our correspondent, Mr. J. J. Lake, suggests that a separate office, distinct from all other business, should be devoted to patents; that in addition to the complete specification, which would only be required occasionally, in case of a lawsuit or the like, a brief and concise abstract, fully explanatory, should be deposited in the office, as a record or index, accessible to the public on payment of a small fee. The heads of the office to be well-known scientific men, and to have no interest in a patent during their tenure; they might also be invested with judicial authority, under proper regulations, in patent cases—an appeal to lie to the Court of Chancery. A *poor* inventor to be allowed to file his specification and abstract, *pro tempore*, gratis, on making affidavit that he has not the means to pay the fees, and that he is receiving no benefit from the invention: this would insure him from unprincipled and grasping capitalists. Such protection to be renewable from time to time, until the inventor found means to pay the fees and carry out the patent. If the invention is of use, it is the duty of the country to protect the poor inventor; and if it be useless, the public lose nothing by granting the protection.

GEOLOGICAL SOCIETY OF DUBLIN.—We have received the second number (Part 2) of the fourth volume of the Journal of this society, containing the report of the last annual meeting, and a variety of interesting papers on geological phenomena. From the address we find that, notwithstanding the severe distress to which Ireland for two years had been the victim, the society had not retrograded, the permanent income had been added to, and the number of the members had not diminished. Among the more curious applications of geological investigations, treated on in the papers published, are some interesting enquiries of M. Boubée, on the geological conditions of the cholera. Having noticed that some places were severely attacked, while others escaped, he had endeavoured to ascertain whether the fact had any connection with the geological nature of the soil, &c., and he found that the limits of the area over which endemic diseases prevailed are frequently marked out by the limits of the geological formations. He points out the remarkable influence which the nature of the soil has on the absorbent powers and dryness of the ground—on the coldness and heat—the nature of the gases evolved, and particularly the nature and amount of the mineral or organic matter taken up by the waters used in drinking and cooking. He states that cholera has shown itself with much virulence in countries occupied by rocks easily disintegrated, and in general terms by tertiary and alluvial deposits. There are several papers of peculiar interest, and we are happy to see the society progressing so satisfactorily.

THE CASE OF MR. BARBER—THE ROYAL PARDON VINDICATED.—A pamphlet has just been published, by Crockford, of Essex-street, from the pen of Sir George Stephen, barrister-at-law, which contains a full review of the case between Mr. W. H. Barber and the Incorporated Law Society, very much in favour of the former, but not very satisfactory as to the impartiality or justice of the latter. Sir George Stephen states, that he had originally an unfavourable impression as to Barber's conduct, and with reluctance consented to the request of a brother barrister to investigate the case; at first he thought his prejudices confirmed, but on completing the task he came to the thorough conviction that Mr. Barber was wholly innocent, and, consequently, a much injured man. This must be the more gratifying, as he was previously unknown to the author, nor had they ever met, even in the course of professional business.

SIR,—Will some of your correspondents have the goodness to inform me, how I can manufacture the sulphate of lime into a marketable state, fit for agricultural purposes, and also what is about the price when ready for sale; the object of my inquiries is to bring to market the product of a very large lode, 10 feet wide, of that sulphate, recently discovered in one of the mines I am interested in. Could a sale for it be effected, we can supply 500 tons per month; it has been submitted to analysis, and is said to be of first-rate quality.—R.

"A. R." (St. John's-wood) must apply to a broker. We never give "advice" under such circumstances.

DAREN.—In noticing the progress of this mine in our last, we so expressed ourselves as to lead to the impression that the returns had paid all the preparatory cost of the mine. There has been sufficient ore raised since October to cover the cost from that time, as also to pay a fourth of the expense of a steam-engine and some profit. The opening and preparatory work of the mine, with the general operations which had been going on twelve months previous to the erection of the crushing-machine, must have been at very considerable expense.

"An Enquirer" (Cheapside).—We invariably recommend the utmost caution previous to embarking in mining adventures. Where the parties are honest-intentioned, they will never hesitate in satisfying all enquirers.

"A. T." had better apply to a solicitor; the recent decision of Lord Cranworth has so defined the law, that the responsibility of parties can be easily ascertained. We quite agree with our correspondent in all that he says respecting the projectors of the Gloucester, Aberystwith, and Central Wales Railway.

STEAM CARRIAGES ON COMMON ROADS.—We have received from Mr. Thomas Motley a very interesting, and, we think, important communication on this subject, occasioned by some unfavourable remarks which appeared in a contemporary, which we shall insert in next week's Journal.

PRACTICAL MINING.—We have some further interesting communications from "Argus' (Truro), for which, as well as those already acknowledged, we shall endeavour to find space in our next Journal.

"W. M." (Holywell).—Our correspondent does not explain whether his queries relate to lead particularly or copper. In ticketing for the latter in Cornwall, and at Swansea, the room, we believe, is free to all *intended* purchasers—any company or private individual tendering a price for any parcel of ore, being considered in that light. Any parcel of ore may be withdrawn by the seller previous to opening the ticketing papers; but such being done, and the highest bidder declared, the sale is considered effected. We presume the lead ticketings are conducted in a similar manner, though we must confess we have had occasion to complain of the dearth of information connected with lead ore sales, as our quarterly returns are, we believe, very far short of the total quantity raised. As to the so-called ticketings (?) of tin, the whole affair is a gross monopoly, and the tin smelters agree among themselves what they shall give the miner, and divide the spoil among them as they require it.

K." (Loughborough).—In about a month.

"A Constant Reader" (St. Just) can obtain what he requires on applying to a broker.

Mr. Campin on the Patent Laws—Mr. A. Dumaresq on the Origin of Ores in Lodes—and Mr. Evan Hopkins on Atmospheric Influences, with other communications, are unavoidably postponed.

Mr. Watson's Compendium of British Mining will be resumed in next week's Journal.

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

*** It is particularly requested that all communications may be addressed—

TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, FEBRUARY 15, 1851.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

We are continually receiving communications on the subject of the unreasonable regulation, now some years since first adopted by the Commissioners of Inland Revenue, of charging the advertisement duty of 1s. 6d. on every mining report, if authenticated by the name of the agent who wrote it. We have memorialised, and had several interviews with the authorities at the Stamp-office on the subject; we have clearly explained to them that no revenue can possibly arise to the Government from such a decision, as it is of little or no importance to the agents whether their names appear or not; and as a judicious economy is one of the great features of success in all mining operations, however trifling the sum may appear, it is an item that would figure very objectionably in the periodical cost-sheet. We have already tested the feeling on this subject, by offering to attach the name of the agent furnishing a report, if the company would consent to pay the duty, and very few assenting responses have we received on the subject. As a last resource, we have a few days since sent in the following memorial to the Lords Commissioners of the Privy Council for Trade:—

TO THE RIGHT HON. THE LORDS COMMISSIONERS OF THE PRIVY COUNCIL FOR TRADE.

The memorial of the proprietors of the *Mining Journal, Railway and Commercial Gazette.*

SHOWETH;—

That a very large amount of capital and labour is now employed in exploring and working the mines of metallic minerals in this country, and that the publication of reports from the agents weekly is highly necessary and important.

That for many years, after the first establishment of the above Journal, your memorialists regularly published all mine reports, with the agents' names attached, which was thus understood as a mark of authenticity; but that in the year 1847 the Hon. the Commissioners of Inland Revenue came to the decision that the advertisement duty should be charged on every report which bore an agent's name as the author.

That while your memorialists are themselves satisfied of the authenticity of every report published by them, the majority of their readers are, from ignorance of the authors, unable to judge as to what degree of confidence can be placed in them. To the agents themselves the question is immaterial, nor are they, perhaps, anxious whether their names appear or not; but the practice, as at present enforced by the Commissioners, opens a wide field for partial and garbled reports, and frauds on the mining public.

Your memorialists suggest that no advertisement duty is ever levied on the reports of railway engineers, or other public functionaries or bodies, with the names attached, which continually appear in the daily press, and that no revenue can ever arise to the Government from the decision arrived at by the Commissioners of Inland Revenue; they, therefore, respectfully pray that such measures will be adopted by your Lordships' Honourable Board, as shall enable them again to publish the several mining reports with the agents' names attached, without subjecting themselves to the advertisement duty.

And your memorialists, &c.

Several of our correspondents very naturally inquire whether there are any grounds or justification on which the Commissioners of Inland Revenue profess to base such a decision, and it has been reasonably suggested that as well might the periodical reports of railway engineers, the financial statements of the CHANCELLOR of the EXCHEQUER, or even the QUEEN'S Speech on the opening of Parliament, be subject to a 1s. 6d. tax on appearing in the public journals, as the reports of the progress of mining operations. The commissioners are, however, armed with so much power, and are in the habit of taking such summary methods to enforce any *dictum* of their own, however absurd, that it is no easy task to oppose their decisions single handed, nor have we time or inclination further to debate the matter with them. Probably at a future day a more reasonable and liberal spirit may pervade the precincts of Somerset House; but having now laid the case before a superior Government tribunal, we must patiently await the result, satisfied that the mining interest will give us credit for having done all in our power to obtain that consideration and redress to which, from its importance, it is undoubtedly entitled.

When the question of free trade was first mooted, the advocates of that measure stated that, as soon as we relaxed our prohibitive duties, other nations would follow our example; and from the consequent introduction of cheap labour, owing to the abundance and low price of the necessary articles of consumption, combined with our superiority of workmanship, our exports would increase, and we should command the markets of the world. These glowing anticipations have, we regret to say, been far from realised. The first measures resorted to in several countries, after the introduction of free trade, was the enactment of stringent tariffs, and hostile to English produce. As labour, in most of the continental states, could be attained at an inferior rate than in England, it was feared when that was equalised native industry could not compete with foreign rivalry. A liberal system, of less restrictive duties, first commenced in Prussia in 1808, owing to the disturbed state of the continent at that period, and the country being under the influence of NAPOLEON, a return to protection was resorted to. On the downfall of that potentate, the liberal system, in 1815, was again called into action, and remained in full force until the year 1847, when higher duties were levied. It was calculated by an intelligent writer that in the last year there were 16,000,000 of consumers of iron in Prussia, who required about 6,000,000 centners of pig-iron, which paid a duty of 10 silver groschen (1s.) per centner (108 lbs. English). This went partly to the revenue, and partly to the ironmasters, being in all 2,000,000 Prussian dollars (300,000*l.*): 8000 labourers were employed in the manufacture, so that it cost the country, "to protect national labour," about 250 thalers, or 37*l.* 10s. per head. Belgian iron was admitted into the Zollverein at a low duty; but notwithstanding this privilege, British pig-iron continued increasing in importation, while bar and sheet had slightly diminished. The question was agitated there considerably last year. The Minister, M. VAN DER HEYDT, however, was a staunch Protectionist; he is now out of office, and we are enabled to state that his successor, M. MANTEUFFEL, has determined on following a more liberal policy, and that the duties, if not considerably reduced, will be ameliorated in a measure more consonant with the spirit of the age. The Norwegian Storthing, who opened their proceedings on the same day as the British Legislature, at their last sitting appointed a committee, to consider the fiscal regulations of the country, and there is every anticipation that the present high duties there will be lessened. The demand for cheap castings and coal has lately much increased; and though a few aristocratic ironmasters have opposed the importation of pig-iron and coke for its reduction, yet establishments in the mercantile towns using those materials have been enabled to compete with them, in spite of the duties. So much are the intelligent portion of the community there in favour of free trade, that M. VOGT, the Finance Minister, who, in the interim period of the last Storthing and the anterior, issued a provisional ordinance, imposing an extra duty on pig-iron, in consequence of the representations of the native ironmasters, was formally impeached, and tried before the Diet, and merely escaped through the astuteness of his counsel, and the obscure mode in which the verdict against him was delivered. While we may consider these facts as matters of congratulation, it is with great regret that we observe a considerable party are agitating in America for a higher tariff, and that this is calculated, in a serious degree, to affect the iron trade. It is said that Washington is infested with ironmasters; the Cabinet is in their favour, and that between 60 and 70 representatives, who have hitherto been considered hostile to any increase of duty, are now converted from the errors of their views, so far as the iron trade is concerned.

The present duties in America are levied at an *ad valorem* rate, and it is supposed that a change will be made to specific duties; should this, however, be too unpopular for the democratic party, a sliding scale is proposed to meet the fluctuations of price, based not on the price of iron in the market, but the average value. The present system is that of charging 30 per cent. on the actual cost. The importations are large when prices are low, but it amounts almost to an absolute prohibition when high. This tariff was first levied in 1846; previous to this the duty was 70 per cent.. In 1844, when the imports were of the value of 509,099*l.*, the revenue obtained was 341,511*l.*; in 1845 the duty was 70 per cent., imports 865,960*l.*, revenue 513,176*l.*; in 1848, at the present duty, imports 1,502,263*l.*, revenue 450,105*l.*; while to the current year, ending June 30, 1850, the imports were 3,449,303*l.*, revenue 1,040,578*l.* About 10,000 tons of iron are exported from Sweden and Norway: the Swedish is principally used in the manufacture of spring, blister, and other kinds of steel. A quantity is imported from Russia, but this is so inconsiderable an item, that it is not separately classified. The Norwegian iron is slit into nail rods; and it is an important fact, that while the original cost is $105 per ton, to which is to be added $18 for slitting into nail rods, when finished they are not superior, and in many cases not so good, as charcoal iron from Staffordshire. From these deductions, it will be seen how important the reduced duty is to our own manufacture. A middle party advocates that the duty should be fixed at 40 per cent., which would afford the probability of an increased revenue, without a diminution of the imports. That the tendency of high prices is to check consumption is, we believe, an axiom that no one will deny; and the prohibitive duties which to this present day are levied in Spain have had no other effect than to demoralise the community, without increasing the revenue. In that country, had the Asturian Mining Company successfully carried out their operations, the ironmasters of Andalusia would have succumbed, and civilisation been greatly promoted, as from the cheap rate they could have produced their iron it would not have made it an article of such value to the *contrabandista*, and Spain, which centuries gone by was famed for its iron-works, would indubitably have taken a high position among the mineral producers of Europe. That country for a series of years has been so divided by intestine faction, that the efforts of the most liberal-minded men (for there are are some in Spain) have been unable to effect any real good for their distracted country. We know that the ironmasters in America are using all their energies for a higher tariff, and that political considerations are mixed up with the question; with this it is not our province to deal, but we confidently hope, from the Anglo-Saxon elements in Brother JONATHAN'S composition, that his good sense and practical knowledge will triumph, and that the absurdity of levying a tax on a necessary article used by all for the benefit of the few is not consonant with the spirit and character of the model republic; while a moderate duty amply protects native industry, produces a cordial and extended intercourse with other nations, and promotes goodwill and concord among all men.

In another part of this day's impression will be found three more communications on the painful subject of the conduct of the owners and viewer of the JARROW COLLIERY—one from our valued correspondent, "M.," to whom great credit is due for having brought to light those objectionable practices which have led to so much strong animadversion; and the other two from one whom we have long known as an active, humane, and intelligent collier, who now signs himself "A. B." The plot thickens; and we shall feel it our duty to keep the subject alive to public observation and public scorn, until the parties concerned give up the reprehensible and wicked practice of compelling men to work under circumstances in which their lives are momentarily in danger, or leave themselves and families in want of bread. It is to us now perfectly clear that the first charges of "M." were in every point correct; and, while we have given each party "a clear stage and no favour," by offering them a fair field for the contradiction to the statements, the only reply has been an evidently one-sided report, which, according to the communication of "M.," in this day's Journal, only proves the mine, and the mode of working, to be immeasurably worse than our correspondent had given them credit for. The proceedings detailed in the communication of "A. B.," of attempting to entrap the men into self-condemnation and discharge, is so repugnant to the liberal spirit of the age, that we blush for our fellow-man who could be an assenting party to them. We are happy to find that the miners, as a body, are making exertions to call the attention of Government to this particularly flagrant case, for, in such an one as this, unity is merely humanity and justice; and we do not think it is going too far to say that it is one which is sufficiently important for a special commission on the subject.

MINING IN FRANCE AND SPAIN.—The last reports from the mining districts of both countries represent a general improvement in every department of mining industry. A very favourable progress is making in Belgium, particularly in the iron and coal districts.

GOVERNMENT CONTRACTS FOR COALS.—The Lords of the Admiralty will receive tenders, on or before the 20th inst., for 600 tons of coals, to be delivered at the victualling stores, Deptford. They will receive tenders for supplying the barracks at Woolwich, Chatham, and Portsmouth, from April 1 next to March 31, 1852. The Commissioners of Greenwich Hospital will also, up to the same day, receive tenders for 2800 tons Wall's-End coals.

COAL TRADE OF THE UNITED STATES.—The quantity of anthracite coal sent to market in the year 1850 from the different collieries in Pennsylania was 3,332,314 tons; while in 1849 it was 3,242,866 tons, showing an increase of 89,448 tons. The greatest quantity of coal was furnished from the Schuylkill County. Three new collieries were put in work, and five were abandoned. Four new steam-engines were erected, giving, on the whole, 169 steam-engines, with an aggregate power of 4818 horses, besides 18 engines, used for various other purposes, with an aggregate power of 156 horses. According to the received accounts, last year was most barren with regard to improvements in the coal region; the machine shops turning out but four engines instead of building from 60 to 75. Upwards of 1000 individuals had been thrown out of employment.

RAILWAY TRAFFIC.

Comparative summary of the traffic upon all the railways in the United Kingdom during the half-year ending June 30, 1850, and during the corresponding period in the previous year:—

Half-year ending	MILES OPEN. 1849.	1850.	No. of Passengers.	RECEIPTS. Passengers.	Goods, &c.	Total Receipts.
June 30, 1849..	5127 ..	5447 ..	28,767,867 ..	£2,822,674 ..	£2,633,263 ..	£5,455,937
June 30, 1850..	6032 ..	6308 ..	31,766,803 ..	3,010,357 ..	3,046,934 ..	6,057,291

Of these totals the following is an analysis of the amounts referable to England, Scotland, and Ireland, respectively:—

Half-year ending—	England.	Scotland.	Ireland.	Total.
June 30, 1849	£4,729,483	£541,611	£184,843	£5,455,937
June 30, 1850	5,214,431	603,245	239,615	6,057,291

THE ELECTRIC TELEGRAPH—EXTENSION OF PATENT.

Application was made to the Judicial Committee of the Privy Council, on Tuesday, by the directors of the Electric Telegraph Company, to obtain the prolongation of letters patent which had been granted to William Fothergill Cooke and Charles Wheatstone on the 12th June, 1837. The books of the petitioners were made up, it appeared, and balanced to the 31st December last, and the subjoined statement will show the receipts and disbursements of the petitioners since the introduction of the electric telegraph:—

Receipts from the railway companies for their use of the company's patents	£122,285 13 2		
Receipts from maintenance and sundries	7,301 13 1—	£129,587	6 3
In addition to the foregoing, the company have received gross profits on the erection of telegraphs for railway companies, amounting to		40,747	4 2
Total		£170,334	10 5
Less charges, including part of the law and Parliamentary expenses		34,319	6 7
Making the total receipts		£136.015	3 10
Total amount paid for patents		£167,688	9 0
Showing that, after crediting the patent account with the above-mentioned amount of 40,747*l.* 4s. 2d. received for erections, the total payments have exceeded the total receipts by		31,673	5 2
The company have in their books charged the capital account of their commercial telegraph with 33,603*l.* 10s. 8d as the estimated value of the patent employed therein. If this nominal charge be added to the amount of actual receipts, as above stated, the patent account will then show an apparent surplus for all patents of		1,930	5 6
The commercial telegraphs have yielded during the three years which have elapsed since the commencement of their working a total gross return of	£103,444 7 11		
At charges amounting to	83,265 6 11		
Showing a surplus of		20,179	1 0

Which surplus of 20,179*l.* 1s. is the total net return upon a capital of 104,229*l.* 17s. 8d., the actual cost, but much more than the present value of the plant—the amount actually expended in the erection of the commercial telegraphs; or upon a capital of 137,833*l.* 8s. 4d., if the patent account is to have the benefit of the above nominal charge, of 33,603*l.* 10s. 8d.

The evidence adduced in support of the petitioners' case was chiefly directed to show the reasonable charges made by the company, and to the accuracy of the accounts. The further hearing of the case was adjourned.

The arguments were resumed on Wednesday, when, at the conclusion of the petitioners' case, the Council *refused the extension of the patent*, upon the ground that Messrs. Cooke and Wheatstone, the original inventors, had received an adequate remuneration. The matter of a commercial speculation by a public company was not a question for the consideration of the Council. They were of opinion, nevertheless, that this was a most important and valuable invention

We have been informed, that the advantages hitherto obtained by the shareholders have been a bonus of 15*l.* per share, besides the usual dividend of 4 per cent. on 300,000*l.* Mr. Cooke, who found capital for carrying out the invention, received 106,681*l.* from the company, and Mr. Wheatstone 30,000*l.*, besides about 1500*l.* royalty to the present time; and Lord Langdale expressed the opinion of the Council to be, that it was still very profitable to the company.

United Kingdom Electric Telegraph Company.—The Standing Orders have been complied with for this company's bill for incorporation and use of Allan's patents in Great Britain, Ireland, and elsewhere.

The Submarine Telegraph Companies.—The Standing Orders have been complied with in the case of the Submarine Telegraph Company between England and France, between England and Ireland, and the European and American Printing Telegraph Company, all proposed by Mr. Jacob Brett, the patentee, of Hanover-square. Parliamentary agents, Messrs. Dyson and Co.

Magneto-Electric Telegraph Company.—The standing orders were complied with for the incorporation of this company, and purchase and use of patents in England, Ireland, and elsewhere.

At a meeting of the Liverpool Philosophical Society, on Monday, Messrs Rigby and Salkeld explained the principle of their new patent electric telegraph and exhibited two of their machines, the working of which was highly commended. Mr. Rigby referred to an important use to which the telegraph was applied in America—viz., to intimate the advance of a storm: this had been done from New Orleans to New York 30 hours prior to the latter place being actually visited. Mr. E. Higgin, in contrasting the American with the English charges, said that, during the cotton speculation mania, he sent a message from Liverpool, which was transmitted from New York to New Orleans, and an answer returned: he paid 26s. 3d. for this, while a message of twelve words sent to London, and done incorrectly too, cost him 14s.

Improvements in Dressing Ores.—Capt. Matthew Francis, at the Allt-y-Crib Mine, has adopted an alteration in the dressing of lead ores, which, when known and appreciated, may in all probability be followed by others. It consists of a new method of treating the slimes; a number of trunks are so arranged as to catch or take them up immediately from the crushing mill, where an apparatus is provided for cleansing them, without allowing them to flow away into slime pits, where it becomes so much distributed as to render it much more difficult than by this improved method to collect and render marketable, also incurring greater expenses in machinery and labour.

Coals for Marine Steam Purposes.—It may not be generally known that the most valuable and important coal for steam-boat purposes is the produce of South Wales. The Nixon's Merthyr and Cardiff Steam Coal, which will be found to realise in the London market from 5s. to 5s. 6d. per ton over the best north of England coals, or, speaking qualitatively, 15 tons of the Merthyr coals are equal to 20½ tons of the best north of England steam coal. From experiments made by the English and French Governments, at Woolwich and Indret, it appears they surpass every other kind in evaporative power, freedom from clinker, small quantity of smoke, and intensity of heat developed. The quantity of clinkers produced was only 12½ lbs. per ton, the other Welsh coals giving 18, 17¾, and 24½ lbs. respectively, and north of England coals 30, 52¾, and 53 lbs., and the weight of water evaporated by 1 lb. of coal consumed was 9·198 lbs., the highest amount by the northern coal being 7·619 lbs. The coal is nearly free from sulphur, requires no stirring, and although at present the price is rather higher than ordinary coal, it is, in fact, cheaper, as the above observations testify. In the second report of Sir H. de Beche and Dr. Playfair, on the coals best suited to the steam-navy, the evaporative power of this description of coals is stated as from 10·27 to 10·72, while that of the Newcastle coal is from 6·98 to 8·65—in one case, Andrew's House Tanfield reaching 9·80. The highest amount of water evaporated at 212° by 1 cubic ft. of Cardiff coals was 556·23 lbs., while the highest of the Newcastle was 489·21. The smallest space occupied by Cardiff coals, in proportion to their weight, was 37·77 cubic ft. to the ton; and the least of the Newcastle, 42·99 cubic ft. to the ton. The rate of evaporation reached by Welsh coal was 520·8 lbs. per hour, the highest of the Newcastle 451·1 per hour. The steam-boats on the Thames, the Peninsular and Oriental, and all the large transatlantic ships, are now supplied with the Cardiff coal, as also numerous engineering and other works.

Coke from Anthracite Coal.—Mr. J. P. Budd, of the Ystalyfera Iron Works, Swansea, has secured a patent for the manufacture of coke from those non-coking coals, including the anthracites, and semi-bituminous coals, which, below a certain size, have hitherto been considered worthless, as they could not be consumed with advantage in their natural state, and their want of cohesion renders them unfit for making coke. Mr. Budd's invention consists in employing small non-caking coals, by mixing the same with a suitable quantity of caking or bituminous coals, and converting such mixture into coke by the ordinary methods. The coals are to be reduced to a uniform size, a coarse powder, by crushing or grinding, or by separating the lumps therefrom by sieves or other means. The mixed coals are then introduced into the usual coke ovens, and the operations of charging, admitting air, &c., conducted in the usual manner. To ascertain the proper proportions, they should first be mixed in equal quantities, and if the coke on being broken does not present a homogeneous appearance, the proportions must be varied until the desired result is obtained.

Increase in the Coal Trade—Cardiff.—The coal trade in Monmouthshire is rapidly extending, and so densely crowded have the Bute Docks at Cardiff been, that notwithstanding every facility for the rapid shipment of coal, much delay has been experienced in meeting the demand. In order properly to meet this great extension of the staple trade of the port and the district, it has been proposed to construct another dock to the eastward of the present docks, for the accommodation of large vessels; and a project has been mooted to convert the sea-lock into a dock. The merchants and others interested in the trade have taken the matter up, and petitioned the trustees of the Bute Docks on the subject. In the valley of Aberdare, Glamorganshire, several very deep pits are being sunk, with every prospect of success.

PURE AIR AND LIGHT IN MINES.

We have received, from the Baron Von Rathen, an interesting communication on the all-important subject of the best means of keeping up a full supply of pure air in collieries, and the most efficient application of light; and, although we fully agree in the humane, patriotic, and generous feelings contained in his introduction, want of space reluctantly compels us to omit it. That portion appertaining to the mechanical arrangements, and patent apparatus, we willingly endeavour to do justice to. Immediately after the dreadful accident at the Darley Colliery on 10th March, 1849, when 80 lives were sacrificed, the Baron forwarded a paper, which was published in our columns, in which he offered the proprietors, from motives of humanity, to provide them with his patent apparatus gratis, and supply them with every information as to its use, by which they could raise water at half the present cost, could most effectually ventilate the most extensive mine, and bring, as it were, an abundant supply of air to the very mouth of the miner. This liberal offer produced no beneficial result; explosions have continued to increase, but no inquiries even are made as to the means employed by the inventor. After congratulating the working miner on the appointment of Government Inspectors, particularly such men as Mr. Blackwell, from whose exertions much good will probably eventually result, leading the Government to see the necessity for a more energetic interference for the protection of the miner, the Baron warmly renews his offers to any colliery proprietor. He is willing either to fit up his entire apparatus, or employ compressed air only as an auxiliary, to raise an imperfect state of ventilation to an efficient one. The principle of his plan is, to fix in a proper situation in the mine a reservoir containing compressed air, which is to be supplied by tubes connected with the condensing apparatus, worked by steam or other power. From this air reservoir, branch tubes would be conducted to all the stalls in which miners were actually working, and they would be kept closed as long as the general ventilation remained in a healthy and safe state, but opened immediately there was the slightest indication of a failure of air being made sensible. It is well known, and here remarked on by the inventor, that much prejudice exists among engineers and professors of philosophy, against the use of compressed air, in consequence of the loss sustained, from change of temperature, leakage, and irregularity of power, estimated as high as 90 per cent. It is stated, that by the two patents alluded to, an apparatus is produced by which air can be compressed to any degree without material loss, a result never before obtained for industrial purposes.

These two inventions, patented in 1841, and a third for compensation and self-regulation in the expansion, have made this beautiful and safe power applicable to numerous purposes, such as locomotion, stationary engines, and other motive-power. That these inventions are not without merit, and that they are practically expedient, we are led to believe from a testimonial given the inventor in 1839, by the eminent John Cockerill, of Seraign. It is in the French language, and declares his full conviction that this new motive-power is highly effective; that it simplifies the construction of the whole details of locomotion, and that it will probably eventually supersede the locomotive steam-engine on railways and in steam-boats, with incalculable advantages; that it possesses great economy, any reasonable speed may be obtained, and is a most safe and agreeable mode of travelling,

For temporary purposes, in fiery mines, a bag of compressed air may be buckled on to the back, provided with a pipe and respirator, which would save many a life in case of choke-damp or carbonic acid gas. For the purposes of a general lighting of a mine, a compressed gas safety lantern has been arranged by the Baron, as also for the use of the miners working in the several stalls. The gas is to be obtained from the mines; and at a future opportunity we shall insert a description of its construction, illustrated by a diagram.

NEW DISCOVERY OF A MATHEMATICAL LAW IN GEOLOGICAL SCIENCE.

M. Eli de Beaumont, of the French Institute, has made a discovery which may probably lead to important results on the bases and value of geological investigations. It is a well-known law in geometry that if a number of cylindrical bodies be compressed parallel with their axis, by forces acting at right angles thereto, they assume the form of hexagonal prisms, the simple cause of which law is that a plane can only be exactly divided without loss of space by three regular figures—the equilateral triangle, the square, and the hexagon, of which figures the hexagon has the least perimeter, which form the bee, from natural instinct, adopts for its honey cells; and, by the same law, the basalts in general assume the shape of six-sided prisms. If a spherical body be submitted to equal pressure in all directions, a similar law is called into action, but with different results, a sphere being only capable of division into a series of dentagonised triangles. The 15 great circles which divide a sphere into as many regular pentagons, possess the minimum of linial extent, which constitute the most complete equation of lines. In availing himself of this law, M. de Beaumont attempts the explanation of an ingenious theory—of the regularity of the angles of the great mountain chains upon the globe. It was known that the principal direction of these systems follows that of the great circles of the earth; and the author, in studying the direction of 21 mountain chains of Europe, has found that the angles formed by these circles towards each other have an almost constant value, and the chains are assembled in groups forming nearly right angles. Comparing these angles with the simple pentagonal net which envelopes the sphere, and dividing it into 120 scalene triangles of equal magnitude, he found the angles by which the 15 great circles are intersected to be 36°, 60°, 72°, and 90°. These facts, in connection with other geographic phenomena, has led M. Beaumont to consider these formations as the result of the folds, or plications, caused by the successive contraction of the mass of the globe in the process of refrigeration. A number of reasons are then adduced to show the correctness of the assumed theory, but which are of too complex a nature to be entered upon here.

Monster Iron Rails for the Exhibition.—Two specimens of iron rails of an extraordinary character, have been manufactured at the works of the Governor and Company of Copper Miners in England at Cwm Avon. One is a T headed rail, 63 ft. in length, weighing 56 lbs. to the yard, or 1176 lbs., showing the unusually good character of the metal to allow of such a length of finished rail, 20 ft. having been hitherto considered a great length. The other is 48 ft. in length, weighing only 60 lbs., or 3¾ lbs. to the yard, exhibiting, to a great degree, the fine, elastic, and malleable property of the iron. These specimens were forwarded, on Saturday last, by the company's line of rails for shipment at Port Talbot for London, to be placed in the Exhibition of the Industry of all Nations during the present year. The event was celebrated by much rejoicing, at which all the workmen were present; and on their return a large number of gentlemen connected with the works assembled in the rail mill, and partook of a plenteous collation, at which numerous toasts were given, and the evening passed with much hilarity.

Oak Farm Fire-Clay Works.—These works, which are situated at Kingswinford, and are the property of Messrs. Chance, the large glass manufacturers, was the scene of much rejoicing on the 6th inst., on the completion of a new crucible room, in which a capital dinner was served up to about 40 of the workpeople, and some of the proprietors' friends. The evening passed very happily, and among the toasts was one to the health of Messrs. G. B. Thorneycroft and Co., in reply to which a high compliment was paid to the head of that firm by Mr. Bird, the manager, who had previously been in Messrs. Thorneycroft's employment. He bore testimony to his knowledge and skill as an ironmaster, his persevering energy, and business habits, by which he had raised himself to that elevated position in life which he had attained. He particularly remarked on his liberal spirit, and his munificent donation of 1000*l.*, on his appointment to the first mayoralty of Wolverhampton, the interest to be spent in food and necessaries for the poor each winter.

Peat Charcoal.—We have, on various occasions, particularly during the past two years, noticed several patented processes for producing charcoal from peat, and are somewhat surprised that a greater development of the riches which are certainly contained in the peat bogs of this country, particularly Ireland, has not yet taken place. In addition to Mr. Jasper Rogers's patent, which is now being carried out in Ireland, we some time since noticed the progress of a company on the peat of Dartmoor, some beautiful specimens of the products of which we were shown in the shape of coke, naphtha, ochre, &c. To those who take an interest in the question, we would recommend a perusal of the specification, published in the *Repertory of Patent Inventions* for January last. The patentees are about taking out a further patent, for the production of an almost pure carbon from peat, and which, we are informed, far surpasses any other manufacture of the kind. We only incidentally allude to this at present, but shall, in a few weeks, be in a position to lay a description of the operations before our readers.

MINING IN THE UNITED STATES.

In a former Journal we incidentally expressed ourselves at a loss to imagine how the Americans dress or ship their ores, judging from the statements made concerning the immense masses of ore, some weighing 5000 lbs., 4900 lbs., &c., we read of as being brought down Lake Superior for shipment. A correspondent, under date New Jersey, Dec. 19, has forwarded some particulars, which will be interesting to many of our readers He confesses that he was equally doubtful on this point, but having business frequently in Philadelphia, he availed himself of the opportunity to call at some of the mining offices, with a view to see some of the specimens referred to in the reports published in the American newspapers. On the 9th Dec., he says, "I called at the North-West Mining Office, where I saw a specimen of native copper, weighing 2544 lbs., which specimen you are likely to see at the 'World's Fair,' or Great Exhibition, together with other fine specimens, the like of which I never saw before. One was a chip from one of the masses, rolled out some yards in length, a part of which I enclose for your inspection and judgment. As to the quality of the large masses referred to in your paper of October 12, I have never seen or heard of any ores sent down from Lake Superior, although I believe there are some there—all I have seen has been native copper. Some specimens of the stamps' work were also shown, with some of the produce of the stamps—small lumps, weighing from ¼ oz. to 1 lb., likewise some very fine, but clean, from rock. After seeing such fine specimens, and hearing the reports of several Cornish miners on the mines on the Lakes, I am disposed to think that the accounts are not exaggerated. A letter in my possession from the Cliff Mine states that they are now sinking under the 300 ft. level, with scarcely any water, and the mine looking as rich as ever, and that several of the other mines are looking well. Another letter I have received from a Cornishman, near Baltimore, says there were 18 men employed altogether; the mine is 220 feet deep, and 70 feet long; the lode or vein varies from 2 to 10 feet wide, in which they have three shoots of ore, yielding from 15 to 18 tons per month—produce from 15 to 30 per cent. A small steam-engine of 6-horse power was sufficient to draw all the water and stuff, with a consumption of 4 cwts. of coal per day. Now, if this mine were extended considerably, both in length and depth, and the ore stoped from the backs of the levels, instead of working all downwards to the level of the water, according to present prospects, it would turn out a rich mine. There is another mine about 22 miles from Baltimore, which I inspected a short time since, which looks very promising, producing large quantities of gossan, and rich specimens of copper ore. The company by whom it is worked are wealthy and highly respectable; they have erected a powerful water-wheel, and sunk their shaft 120 ft. under the old workings, which has drained the lode so as to enable them to sink and drive on the course of it from the said workings; and the result is, that five men, in 15 days, have laid open from $15,000 to $20,000 worth of ore, with a fair chance of turning out a much larger quantity. I inspected another mine within 20 miles of Philadelphia, about two years since, where they have raised about $70,000 worth of copper ore in a brief period, all above a 300 feet level, and in a short distance lengthways the lode was regular, and produced fine gossan, equal to any I have seen in England: although this mine is not rich, yet I believe if they prosecute her properly, the company will be well remunerated for their outlay. At Valley Forge, about three miles from the latter mine, Capt. Thomas Petherick, well known from his judgment and ability in Cornwall, is now about to erect a low-pressure steam-engine on a very promising mine, with every chance of success. There is also a lead mine not far distant from Valley Forge, which is, I understand, working profitably. I might go on to enumerate other mines in which the operations are on a small scale, but which, if worked with spirit, would, I have no doubt, make good mines at an easy outlay. The mine in which I am engaged is not rich, but I have driven through some rich bunches of ore, and, from what I have been able to ascertain, $30,000 worth of ore has been raised from it, all above the 70 feet level. We are now driving at a 200 feet level to cut the lode west, with a fair chance of success.

"Mining in this country may be considered in an infant state, as the deepest mine is only 300 ft., and many of the mines are under the management of parties whose experience and knowledge of these matters are very limited. Nevertheless, capitalists are beginning to look at mining as a matter of business, and not of jobbing, as has been hitherto too much the case; and should the operations at the different mines continue to go on as steadily as they have done during the past year, the quantity of native copper ore obtained on Lake Superior, as well as the ore raised in the Atlantic States, will, I fully believe, be next year increased one-half."

The Steel Duties.—The Lords of the Treasury having received an application from an eminent firm, requesting to be informed, for the guidance of the trade, with reference to a practice which has recently obtained in the matter what description of articles were entitled to be entered under the denomination of steel unwrought, the Commissioners of Customs have received a communication from Mr. G. Cornewall Lewis, one of the secretaries to the Treasury, stating that he has received their lordships' commands to transmit, for their information, a copy of a letter which their lordships have received on the subject from the Lords' Committee of the Privy Council for Trade, and to state, that under all the circumstances, their lordships are disposed to concur in the view taken by the Board of Trade, and that their lordships, therefore, desired them to give directions for bars of steel; similar to those imported on this occasion by the firm in question, to be allowed to be admitted to entry as unwrought steel, and free of duty. In transmitting this order of the Lords of the Treasury to the collectors and comptrollers, and other principal officers of the revenue at the several ports of the United Kingdom, for their information and future government, the Commissioners of the Customs have directed them to observe that the term "steel unwrought" must be held to include all forms of that material which do not fairly come within the meaning of the term "manufactures.'

West Dean Steel Works, Forest of Dean.—These specimens of mechanical skill, which have been lately erected under the superintendence of Robert Mushet, Esq. (our valued correspondent), have been in active operation during the latter two months. The steel being made upon a principle altogether different from that used in common—a secret exists, only known to the ingenious inventor. Report says that a valuable contribution to the coming Exhibition, manufactured into almost every nameable article to which steel can be adapted, will be forwarded.

Portable Steam-Engines.—We have, during the week, inspected some portable steam-engines, for agricultural and other purposes, at Messrs. Deane, Dray, and Deane's implement manufactory, Swan-lane, London-bridge, which, for compactness and power, in proportion to their size, are well worthy attention. They are on the well-known plan adopted by Messrs. Clayton and Shuttleworth, and one arrangement of the tubes and fire-box within the horizontal cylindrical boiler is highly advantageous. They are mounted on carriages with broad wheels, and can be moved from place to place with great facility. Engines of some such similar construction would, in many instances, prove of very advantageous economy in proving young mines and unexplored mineral ground, avoiding the large outlay for a permanent engine, until it is tolerably well ascertained that the lodes would pay for working.

Improvements in Steam Boilers.—Among the American patents, is one granted to Mr. F. P. Dimpfell, of Philadelphia, for an improved arrangement of steam-boiler furnaces, which consists in making a box or lining, with a partition introduced between the outer shell and inner case of the boiler, in such manner that the air, whether introduced under pressure or by draft, shall rise between the outer shell and the partition over the upper edge thereof, and then down, and through the inner case to the fuel contained on the fire bars therein. There is also a claim for making the furnace door with an inner lining or plate separated therefrom, leaving an open space for the passage of a cooling medium, as air or water, combined with a series of tubes, for the purpose of regulating the current of such cooling element.

New Gas-light.—An American has applied for a patent for a cheap and brilliant gas, produced on a new principle, which he states can be obtained at a cost less than 1d. per 1000 feet. It is said that no wood, coal, or water, is required; that the material can be obtained anywhere. It is a self-acting and self-creating gas, called into action by an impulse of nature, from whence may be derived a new motive-power of light and heat. An Englishman also asserts he has a plan by which any one may produce his own gas by a machine like a table-lamp, not costing more, and creating a superior gas, at one-third the cost of coal-gas, requiring only to be turned on and lighted, but that he has not the means of protecting his invention from piracy.—*Expositor.*

Ironworks among the Hottentots in 1849!—The Bakatlas work a great deal in iron. The ore is smelted in crucibles, a great deal of the metal being wasted, and only the best and purest preserved. They use a sort of double bellows, consisting of two bags of skin, by which the air is forced through the long tapering tubes of the two horns of the oryx. The person using the bellows squats between the two bags. Their hammer and anvil consist of two stones. They, nevertheless, contrive to turn very neat workmanship out of their hands, such as spears, battle-axes, assagais, knives, sewing-needles, &c.—*A Hunter's Life in South Africa*, by R. Gordon Cumming.

WASTE GASES FROM THE BLAST-FURNACE.

BY DAVID MUSHET, ESQ.

The two main defects alleged to have arisen in the attempted economical application of the blast-furnace gases are a diminution of make and an irregularity of working; and it is remarked as strange that these effects should ensue on "the mere fact of using, instead of wasting, the gases escaping at the funnel head after they have entirely *finished their action on the charge.*" This latter assumption is undoubtedly an error; and I have always combatted it. If the gases, at a depth of 6, 8, or 10 ft. from the filling place, had entirely finished their action on the charge, it must follow that that additional height to the furnace is unnecessary, and that the furnace would work as well, and make as much iron, if deprived of that extra elevation. Nothing has been more effectually contradicted by experience. The subtraction of so many feet from the top of a furnace has been proved repeatedly to produce marked injurious consequences. An experiment was made at one of the very works enumerated last spring as using the waste gases, by removing 10 ft. from the top of one of six furnaces. The effect on the make is well known, and the difference had to be restored. In what way the abstraction of a large volume of heated gas, 8 ft. down the furnace, does mischief is obvious. It is not probable that in ordinary circumstances the ore in that 8 ft. is exposed to such a heat as to part with any of its oxygen; but what is more manifest when upwards of 5 tons of materials per hour, at a mean temperature of 60°, are filled into a furnace, that it must be a matter of no small consequence to deprive this constantly renewed bulk as it descends of the action of the heated gases, which ought gradually to raise it to the temperature of that part of the furnace which it is approaching where the deoxidation commences? What is the arrangement which is designated a use of the *waste* gases? A cylinder is inserted into the furnace, 8 ft. in depth, into which the cold materials are discharged. The whole heated gas of the blast-furnace does not, as in an open top, pass through this body of matter; on the contrary, in those cases where the tube is covered, and described as hermetically sealed, to prevent the entrance of atmospheric air, there is no hot gas passing through it at all. If there is no pressure from without, and the blast to its amount of pressure fills up the cavity underneath the cover, the degree of heat communicated to the cold materials is altogether insignificant; whilst the main volume and current of gas is passing away in another direction. It is, therefore, plain that the detailed arrangements are *not* a use of the *waste* gases. The object of withdrawing the gases at a considerable depth, as explained to me by those engaged in the operation, is to take them in a more heated condition to the boilers; but this is "robbing Peter to pay Paul." The *first* economy must be in the blast-furnace; that is the prior consideration in every respect. If the heat taken away from it diminishes the make of iron, with a given quantity of coke (only 10 tons weekly, much more if 30 tons, which is the effect recorded), the saved coal of the boiler fires is indeed the gain of a very great loss. The first point for attention must be to use *actually* the *waste gases*; and for this end they ought to be in reality drawn off "after they have finished their action on the charge." If after they have done this, and passed through the materials to communicate the necessary heat, they are then found too cold to inflame effectually under the boiler, that is a distinct consideration. This difficulty must be encountered on its own merits, and be overcome if it can; but the power of the furnace is a separate and more important question, which must be preserved intact. In tampering with this, there can be no economy. I consider, therefore, that the depriving the furnace of a part of its useful gases is one main cause of the diminished make. Another cause will be explained by my remarks on the 14th Oct. on the effects of a wide filling place. In whatever degree the arrangements for removing the gas obstruct the free passage of the blast outwards, they will insomuch produce the same effect as narrowing the filling place. If the area of the conducting pipe and flues were equal to the unobstructed area of the top, the blast would not even then have so free a passage. The obstacle presented by the cover, and the impulse destroyed by the lateral angle at which the gases escape, would neutralise the effect of even a high velocity in the conducting tube, induced by the draught of the boiler chimney. But I have understood that every thing approaching to an exhaustion of the gas, which would bring atmospheric pressure into play, and endanger the entrance of air through the cover, is carefully avoided. It is, therefore, plain that, in conducting the gas to the boiler by a tube of 3 ft. square, which I have been told is used, there must be a great check to that rapid action which gives so much advantage to a large filling orifice.

The second alleged evil is scaffolding, and the irregularities of working which are entailed by that most noxious disease. Scaffolding has its origin in a destruction, or disturbance, of the equilibrium of the descending materials, which should preserve an equal uniform motion from every side towards the centre over the hearth, where the power of that motion is constantly acting. The action of a blast-furnace, with properly-formed boshes, is very exactly exhibited by the descent of the sand in a sand-glass. The form which the sand assumes in its descent by the continuous abstraction at the orifice beneath, is a picture of what is proceeding in a regularly working furnace. If by any means an obstruction is formed vertically over the hearth, the equilibrium of descent is destroyed. The blast has to force its way at the weakest lateral point. An irregular unbalanced channel of fusion and descent is established, affecting the materials partially instead of centrically. As the central obstruction is gradually worn away, the bulk of partially heated materials press upon it as they pass over to the lateral channel; and, when sufficiently weakened, then comes a slip, which probably fills up entirely the false channel of fusion, forcing the blast to drive a passage in an opposite direction, and perhaps diverting this heating agent, which ought to be concentrated, into several lateral detachments. The materials which have been brought into semi-fusion in the false channel, are suddenly chilled and agglutinate, forming often a permanent shelf attached to the side of the furnace, perpetuating irregularity of action; one evil leading to another; so that it is very well known, in cold blast-furnaces especially, when scaffolding by some accident has been established at first starting, that the furnace has often never righted itself until blown out. Now, I should say beforehand (and this is what I expected to hear some account of), that it would hardly be possible to devise a more certain means of destroying the working equilibrium, and establish scaffolding, than to find a mass of cold materials in the centre of the furnace; and, by withdrawing the gases at the sides, *keep them* proportionally *cold* as far down the furnace as possible, favouring at the same time in every way the *lateral* passage of the blast upwards; and, where the gas is drawn off at one side only, tending to maintain an oblique channel and current towards that particular side. I have not found that the effects of the manner in which a blast-furnace is filled upon its regularity of action, are by any means so fully recognised and considered as the great importance of the subject deserves. You will find, in conversing with experienced furnace managers, that some of them are aware that a greater heat may be obtained in a given part of the hearth by filling a greater proportion of coke at the top vertically over that region; but a thorough appreciation of its consequences, and its reduction to a system of regular practice, I have been unable to trace further than to the eldest of two brothers of the name of Broad, managing Mr. Crawshay's furnaces at Cinderford, and Mr. Booker's at Pentyrch. I always make a point of naming the originator of any improvement, as far as I know it; for I am sorry to say it is but too much the fashion not only to appropriate the ideas of others without acknowledgment, but even to wrap them up in a *colourable variation*, so as to make them, if possible, appear original—a course of confusion which is quite unpardonable. There are, I fear, quite as many pirates of ideas as of patents; and I should equally shudder to be identified with either class of dishonesty. The principle to which I refer, and which is absolutely essential to the successful use of refractory ores with hot-blast—the lesser penetrative intensity of which gives it an especial tendency to the sides of the furnace rather than to the centre—is to fill the ore and fluxes in a ring round the sides, leaving the centre of pure coke. What might be the effect of this arrangement with cold-blast, where the nature of the materials is to work very cold at the tuyères, I have not seen tried; but the principle in itself is so sound for maintaining the central action of heat, and the equilibrium of descent, that I have no doubt it might, with proper modifications beneath, be rendered most beneficial, even in such cases where the character of the materials demand it least as a *necessary* practice. By the fruits of it, in my own experience, I consider it impossible to over-value the importance of the principle. By the present mode of filling through the tube, the materials are delivered into the body of the furnace in a conical heap; so that for at least 2 ft. further down than the aperture of delivery—that is, to a depth of 10 ft.—there will be no mine or materials of any sort against the sides of the furnace; and the materials which find their way there will be the largest fragments of coke or ore, rolling down the sides of the cone. All the small mine coke and dust will remain aggregating in the centre, forming a dense impervious column over the hearth, obstructing effectually the vertical ascent of the blast; whilst the open texture of the mass accumulating towards the sides will give the greatest facility for its ascent in that most improper of quarters.

These, then, are the causes of the alleged evils, and which will be developed in different degrees, according to the nature of the materials:—1. That the gases withdrawn are not the *waste* gases.—2. That the vent of the blast is checked, and the same diminution of working generated as arises from a narrow top; for it is distinctly explained that the gases are not *drawn off*, but only diverted into a smaller channel. Were they actually drawn off—that is, taken from the furnace by an exhaustion which created atmospheric pressure—that could have no other effect, so long as the coverings were air-tight, but to induce a more ready entrance of the blast, causing the furnace to drive faster and make more iron. The cause of the third evil, the scaffolding, is the mode of filling. This is the principal defect; and the arrangement for the cure of this will include to a certain extent the cure of the others.

[To be concluded in next week's Mining Journal.]

Original Correspondence.

THE IMPENDING EXPLOSION—JARROW COLLIERY.

SIR,—Since my last week's analysis of the proceedings on this devoted mine, and the leading points of the extraordinary report, the curious document itself, which went begging for insertion from London to the north, has, at length, been published *in extenso* amongst the advertisements of the *Newcastle Chronicle* and *Newcastle Journal*. It adds another striking fact to the dangerous condition of the mine, and demonstrates, as the basis of security, an infinitely worse one than that it previously possessed. It was stated by me, that the entire air that descended Jarrow shaft in 1842, according to actual measurement by the Shields' Committee, was 42,660 cubic feet per minute; and that Prof. Playfair's theoretical calculation in 1845, taken from the area of the downcasts, and the general rate in some other shafts, gave 41,580 cubic feet.

Now, it appears, by the actual admeasurement and admission of this report, that the air at present is only 29,630 cubic feet per minute—*upwards of one-fourth less than the bases of* 1842 *and* 1845, showing that proportion less of the means of safety; while an increasing demand for it is made by years of extended workings.

The reader of the letters on this mine will, therefore, be pleased to deduct upwards of one-fourth from the main quantity of air stated to be carried into the mine. As the pit has so retrograded on this vital point, instead of advancing, it will, of course, proportionally reduce the district supplies, except that to the eastern, which seems likely soon to receive the whole air of the mine, if the process does not speedily come to a dead stand. The condition of Jarrow is, therefore, even more critical than one at first supposed it. Retrogression and destruction are the principles that sway its destinies.—M.: *Feb.* 12.

THE IMPENDING EXPLOSION—JARROW COLLIERY.

SIR,—At the usual fortnightly meeting of the Coal Miners' Society, held on Saturday last, at Newcastle-on-Tyne, the report of Messrs. Wood, Forster, and Anderson, on the condition of Jarrow Colliery, was read, when, after due consideration of the great point at issue between the viewer of that colliery and the workmen, it was resolved to memorialise the Secretary of State on the subject, and to draw the attention of her Majesty's Government to the importance of this particular case, and to urge the necessity of appointing a special commission to investigate the whole case, and thus set the matter at rest.

Sir, the miners have taken up this question as one that affects them generally, and as not being confined to the Jarrow workmen alone. During the consideration of the case, it was ably put forth by several of the miners, that should this case pass unnoticed by them, a precedent would be established, which would go far to frustrate the humane intentions of the Government and the Legislature in passing the Mines' Inspection Bill—that, in fact, the usefulness of the inspector would be entirely superseded by the regular calling in of certain viewers, who would invariably call in question the report of such inspector, and by such means effectually destroy the benefits of the bill. At a meeting, held previously, the sable letter of your correspondent, "M.," on the Jarrow case, was read, and the following resolution come to by the meeting:—

"Resolved,—That this meeting accord their grateful acknowledgments to the gentleman who has explained the position of the dangerous nature of Jarrow Pit, and demonstrated the inhumanity of those who are anxious to compel the workmen to risk their lives, as shown by him in his letter to the *Mining Journal*, and return their due thanks to the Editor of that paper for his ready insertion of the letter, and other artices of a like nature, appearing therein."

Sir, that the benefits arising from the bill will be of a very limited and doubtful character is generally acquiesced in; but limited as are the provisions of the bill for the safety of life and preseveration of the health of the miners, yet there cannot be a doubt that, if the party interested can call in another party to set aside the opinions of the workmen and of the inspector, then, surely, the workmen have just grounds to solicit her Majesty's Government to add other powers under the bill, or to issue a commission to investigate the case fairly, and thus afford additional means of saving life, by a timely removal of the cause.

Sir, since the above proceedings took place, I have read with pleasure the able article on the necessity of improving the bill; and I am sure it will afford you pleasure to see that the miners are not intending to be idle in this matter; and I shall feel it my duty, at the next meeting of the Miners' Society, to again bring before them the necessity of following up the excellent suggestions thrown out by you in that article.

Sir, could the miners, as a body, have access to the valuable papers on colliery matters, which regularly appear in your Journal, they would make much more rapid progress in that species of education which they require—namely, to understand the whole science of colliery ventilation; to the absence of which may be ascribed the daring and risk which is of daily occurrence in colliery management.

Perhaps I may be allowed to intimate that the demonstrative character of the letter on Jarrow Pit, in your Journal of Feb. 8th, completely demolishes the foundation of the viewer's report, and ably illustrates the necessity of increased powers under the Mines' Inspection Bill, so as to give increased security to the lives of the industrious miner, and to bring into practice all the scientific appliances which add increased safety to their lives and health.

Sir, in the report by the viewers (Messrs. Anderson, Wood, and Forster) on the Jarrow Pit, they state that they have apprehension of danger from the sudden outbursts of gas from blowers, &c.; because (say they) nothing of the kind has shown itself in this portion of the pit—a doctrine which at once shows the practice of the managers of mines to be strongly tinged with the policy (or rather impolicy) of "locking the door when the steed is stolen;" they indirectly averring that it is soon enough to provide against danger when some lives have been lost—a doctrine and a practice so pernicious, and so absurd, that few gentlemen could be found to put their names to the sanction of such a proposition. Why; have not all the serious accidents that have taken place in this and other coal districts been classed in the category of not being expected, and, consequently, the means of safety neglected? At a colliery where I worked as a coal miner, I had a narrow escape through the want of the proper preparation to guard against any sudden outburst of gas. The board I worked in was nearly up to the pillar; and, although bratticed within 4 yards of the face, there was but a weak current of air passing up the same, owing to the want of a door at the board end. The gas came off suddenly; and, perceiving the usual indications of the ignition of fire-damp, I retreated to the board end, sent for the overman, and on his arrival, 20 minutes after my withdrawal, the place was filled with gas 12 yards from the face, as shown by firing at the safety-lamp. He immediately gave orders for a door to be set at the board end; and in two hours this body of gas was gradually swept away. Now, the only reason why a door was not regularly set at that place was that no danger was apprehended from sudden discharges of gas, because none had been seen before; and testimony of this nature would have been brought before the coroner had a death ensued thereby, and ensured a verdict of "accidental death."

At Wall's-End Colliery, quantities of gas usually came off when the shots were fired, and the workmen were provided with a long pole and a bundle of flannel tied on at one end, which they frequently had to use in flapping out the fire, which had become ignited, after the process of blasting the coal; and at that colliery the quantity of gas that came off was sometimes much more than they could extinguish by the flappers; and, in one instance, at least the fire was so large, that the board had to be built up, so as to prevent any access of air, that the fire might die out. And, although the practice of blasting the coal has been discontinued in that colliery, yet it shows the difference of cautious management under the present viewer and the one who preceded him. Besides, although no gas is perceivable previous to the shot being fired, the fact of the shot displacing a great body of the coal, affords the greatest probability of allowing the gas to become discharged; and if a large blower comes off, then an explosion is the consequence.

I perceive Mr. Jobling, in his request for Messrs. Anderson, Wood, and Forster, to come and examine the colliery, states, and that in a complaining spirit, that the inspector had shown the letter written to the Home Secretary in the first instance, but would not do so in the second. The inspector, in my opinion, did wrong to show even the first, inasmuch as it gives the owner and viewer power to discharge such workmen who take an active part in these matters, and would necessarily lead to a complete cessation of all such complaints, if the names of such parties were exposed; and there can be no doubt but Mr. Jobling had an eye to the value of such information, in requesting the names of the parties who signed the document to Sir George Grey, the Home Secretary. M. Jobling states that the party who signed the first letter was a discharged workman, and evidently wishes to make a point of that in his own favour; but does not Mr. Jobling know that this workmen had been discharged for his active participation in the strike, when the great body of the workmen refused to work if the blasting had tobe introduced? and does he not know that the workmen, on due consideration, resolved to keep this man idle, that he might act for them officially, and prevent the discharge of other parties? Hence, although the person was a discharged workman who signed the first letter of complaint to head quarters, yet the head and front of his offending was, that he acted officially for the workmen, at their request.

Sir, the miners owe a debt of gratitude to yourself, and the various friends who have put the case which concerns their health and life before the public and the country, through the medium of your Journal; and, although I am conscious that what is here stated is but what has already been published in your columns, yet I was anxious to apprise those numerous friends of the miners, and yourself, that they took exactly the same view of the case, and that they are determined to use their best efforts to bring about a different state of things, as regards the preservation of their health and their lives.

Feb. 13. A. B.

THE IMPENDING EXPLOSION—JARROW COLLIERY.

SIR,—As you have been good enough to give publicity, through the columns of your excellent Journal, to the complaints of the workmen of the Jarrow Colliery, and the dangerous practice of blasting the coal in a portion of that pit, where the acknowledged necessity of using safety-lamps is daily practised, perhaps you will find room for the following exposure of the conduct of the agents of that colliery, which was perpetrated last night towards their workmen, relative to the above matter.

It appears that ever since the workmen made their complaints to Sir G. Grey on this question, they have been harrassed by the officials of the pit to disclose the names of those workmen who had signed such memorials; but except in one instance, where one of them boldly avowed himself as one who authorised the forwarding of such document, and for which avowal he was discharged, they have, up to this time, been able to baffle all attempts to find out their names.

Last night, however, being reckoning night, when each workman goes to the overman to ascertain the amount of his earnings and the usual off-takes, they were surprised to have their attention called to a paper which they were required to sign, purporting a disavowal of the parties who signed it, that they had *not* signed any document or memorial to the Secretary of State relative to the apprehension of danger in that pit—the agent, at the same time, telling the workmen that those who had signed such memorial were not to sign this paper, and announcing that the master did not intend to discharge any man for having signed any memorial to the Secretary of State, &c.

The workmen, however, having the fate of two or three of their body before them, who had been discharged, as they had ample reason to suppose, for their participation in this matter, took the only safe way left them, by boldly signing the said paper, prepared so ingeniously by their employers to entrap them—thus being obliged to wrong their conscience, that their families may not want bread.

Sir, it is sorrowful to contemplate the position of a workman thus situated. They feel satisfied that their expressed apprehensions of danger are real. They have the experience of the inspector of mines, who for 40 years, perhaps, had been a manager of collieries, to corroborate those fears as justly grounded; and when they take advantage of the humane intentions of the Legislature, as provided in the Mines' Inspection Bill, to apprise the Government of the introduction of a dangerous practice—viz.: to compel the use of powder in blasting the coal, they are harrassed with numerous attempts to find out the names of those who had actually signed the memorial to the Home Secretary, and for a purpose which the body of workmen experimentally divine.—A. B.: *Feb.* 13.

IMPROVEMENTS IN PUDDLING IRON.

SIR,—In your paper of 8th inst., I notice a request that I would furnish some information respecting Mr. Plant's patent for puddling. This patent process has been in operation at two of our puddling-furnaces for several months past, and the result is, that with the same quantity of coal 50 per cent. more iron is produced than the same furnaces turned out before Mr. Plant's patent was adopted; consequently, there is a saving effected of *one-third* the fuel required per ton of puddled bars. The yield of pig is rather better under the new process than under the old, and the quality of the puddled bar made by Mr. Plant's plan is decidedly superior to that made by the ordinary mode of boiling. C. J. HAMPTON.

Llynvi Iron-Works, near Bridgend, Glamorganshire, Feb. 12.

THE "CRYSTAL PALACE"—INVENTIONS, &c.

SIR,—I have just been reflecting on what *I* could have supplied to the Crystal Palace, had I felt so inclined; but it occurred to me that the officials of "The World's Fair" would have quite enough to do, without *my* troubling them. I may, however, be allowed to name them:—

A model of my apparatus for saving from shipwreck.
Model of a life-boat.
Model of a new shower-bath.
Safety-lamp (the first ever proposed, 1815).
Apparatus for restoring suspended animation.
Model of my new lightning conductor, &c. &c.
Also, the first paper made from *Phormium tenax*, or New Zealand flax.
The first paper made from *Musa textilis*.
The *blue lias* of Lyme Regis, as first used as a *lithographic stone*.
Impressions of lithographs from the *fossil ink* of the *belemnite*, first used as a lithographic crayon; *cum aliis*;—but this list may suffice.

I have no doubt that many, like myself, have, from timidity and other causes, withheld their contributions.

It is a glorious exhibition, worthy of our country and her noble sons; and PRINCE ALBERT has acquired immortal honour, for having originated a scheme of such imperial grandeur and unparalleled magnificence; and I believe the "World's Fair" is destined by Providence to tell with emphasis on the world's eventful history. J. MURRAY, Ph. D.

Broadstone, Stranraer, Feb. 13.

MONUMENT STRUCK BY LIGHTNING.

SIR,—I observe that the monumental tower raised to the memory of the late Sir John Barrow (secretary to the Admiralty), at Ulverstone, was struck by lightning on Thursday week, and considerable damage sustained—nine huge masses of stone having been dislodged.

Isolated buildings are more likely to become the victims of the meteor than any other, and that often soon after their erection. This was the case with the *first* monument erected to Nelson—namely, that at Glasgow. The last stone had just been placed on its summit, when the lightning fell and rent the column. It was so, too, in the case of the Luxor Obelisk, in the Place de la Concorde, at Paris, which was in like manner inaugurated by lightning. The church at Kirkstall had scarcely been finished when its spire was struck by lightning, and the damage on that event was estimated at 600*l.* After the catastrophe, Mr. Chantrell, the eminent architect of Leeds, who has erected many of my lightning conductors, applied to me for instructions respecting that which was immediately afterwards erected on that church.

In cases like these, to set the perils of the thunderstorm at defiance is highly culpable, when the remedy is at once simple and efficient, and the expense, moreover, so trifling. J. MURRAY.

Broadstone, Stranraer, Feb. 11.

WATER.

SIR,—The more I consider the question of the supply of water to towns, the more I am convinced that *river* water should be repudiated, and that its wholesomeness in reference to the animal economy, has far more to do with its *organic* matter than its comparative softness or hardness, as to its inorganic chemical composition. Even if bad water did not *originate* endemic diseases, there can be no doubt that it seriously aggravates them: that noxious water predisposes the system to the invasion of epidemic disease, I cannot doubt. River water is especially fraught with organic life such as monoculi, the entoyoa, and among infusoria, the vibrio and volvox—I need not, however, particularise, for their name is legion. The water of the Thames, Hull, and Nith have all been proved, beyond contradiction, to have fearfully aggravated the cholera in 1849, and the Tyne, at Newcastle, in 1832. The chief sources of these organisms are the sewers that empty themselves into these rivers. Though the existence of these microscopic animalculæ are not doubted, and cannot be denied, it has been questioned whether their action is *injurious*: for my own part, I can have no doubt about the matter, I only wonder there should be any scepticism on the subject. No one doubts that stagnant water is injurious, nor would any person affirm that the bad water of the pestilential swamps of Walcheren, where the teeth were in constant requisition as a strainer, did not materially aggravate the type of that fatal fever. It is also admitted that *decomposing* organic matter is found in every river, but it has been said that the quantity is too small to be injurious! Too small! where are we to look for the graduated metre of injury? This is egregious trifling in a very serious question. According to Ehrenberg, invisible animalculæ cause the death of fish in their own element; and, without stopping to inquire whether, as Müller conjectures, they may yet be discovered in the human intestines, their presence may unduly excite, or irritate, the alimentary canal, and prove seriously injurious or destructive to health. Thus may they act as a predisposing cause to febrile attack on the invasion of the system by cholera.

Facts innumerable bear testimony to the truth of these positions. Horses and cattle are always seriously affected, as well as strangers, at Inverness, in drinking the water of the River Ness. The troops were affected with dysentery by drinking the water of the River Lee at Cork; and in the trial *versus* Hall, of Basford, at Nottingham, it was proved in evidence that the cattle perished of dysentery by drinking water fraught with organic matter. More facts might be supplied, if more were necessary, to substantiate the well-grounded assumption, that river water is most injurious to

health from its impregnation with organic matter, arising from sewers and other impure sources. It is the same with any water if imbued with organisms, either animal or vegetable, but above all, the former. I have no other object in lucubrations such as these but the public good; and pure and wholesome water, is chief in interest in any sanitary question whatever.

Broadstone, Stranraer, Jan. 27. J. MURRAY.

"Lectures serve only to give *a taste* for Science, they never *teach* it."

COLLEGE OF CHEMISTRY, LIVERPOOL.

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Professor—Dr. SHERIDAN MUSPRATT, F.R.S.E.
Hon. Assistant—Mr. JOSEPH DANSON, F.C.S.

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,,	three days	,,	10	10	0 ,,
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PATENT IMPROVEMENTS IN CHRONOMETERS, WATCHES AND CLOCKS.

55

E. J. DENT, 82, Strand; 33, Cockspur-street; 34, Royal Exchange (clock tower area), Watch and Clock Maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each.

DENT'S PATENT DIPLIEDOSCOPE,

or Meridian Instrument, is now ready for delivery.—Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

KUPER & CO.'S PATENT IMPROVED WIRE ROPES,

MANUFACTORY—GRAND SURREY CANAL, CAMBERWELL, LONDON.

56

SOLE AGENTS.
FRANCIS AND H. J. MORTON,
10, NORTH JOHN-STREET, LIVERPOOL, and 9½, ALBION-STREET, LEEDS.

The great SUPERIORITY and ECONOMY of WIRE ROPES for MINES and RAILWAYS, over Hemp Ropes or Chains, has been fully established by extensive use in all the principal mining districts in the United Kingdom for many years—being cheaper, much lighter, more durable, and a great easing to the engine.

KUPER & CO. request particular attention to their IMPROVED FLAT ROPES, and their very superior mode of stitching; also to their ROUND ROPES, for Inclines, &c., and PIT GUIDES or CONDUCTORS made of very thick wire, and in one length, without joints.

Prices, carriage free to the nearest railway or water station, 56s. per cwt. for round 70s. per cwt. for flat ropes; galvanising, 10s. per cwt. extra.

SIGNAL CORD, galvanised or varnished, of all sizes, for Mines, Railways, &c., from 14s. per 100 yards.

GALVANISED SIGNAL PULLEYS, with brass wheels, 6s. per dozen.

GALVANISED and CORRUGATED IRON ROOFING, GUTTERING, SPOUTING.
WATER and GAS PIPES, of all kinds, FIXED and SUPPLIED.
GALVANISED GAS, WATER, and STEAM PIPES, of great strength.
FAIRBANK'S PATENT WEIGHING MACHINES, of all sizes, at very low prices.
ASPHALTED ROOFING FELT, 1d. per square foot.
DRY HAIR BOILER FELTS, of all thicknesses.
PATENT WIRE STRAND FENCING and ORNAMENTAL WIRE WORK, for Railway, Park, and Agricultural Fencing.—F. & H. J. Morton have fixed upwards of 500 miles of this fencing in the last few years.—Price from 1s. 6d. per yard, fixed, complete.

☞ STOCKS constantly kept in LIVERPOOL, LEEDS, and LONDON.

F. & H. J. MORTON,
PATENT GALVANISED IRON AND SPOUTING WORKS,
10, NORTH JOHN-STREET, LIVERPOOL, and 9½, ALBION-STREET, LEEDS.

BIRAM'S PATENT ANEMOMETER, FOR MEASURING THE CURRENT OF AIR IN MINES, &c.

57

This INSTRUMENT is CONSTRUCTED so that the ACTION of a CURRENT of AIR on EVERY PART of the VANES may tend to PRODUCE a REVOLUTION of the WHEEL in the same time—the number of feet lineal which have passed through the wheel being shown by indices which revolve on the dial-plate underneath the handle.

Further particulars, with references, may be had on application to the patentee.

BIRAM'S MINER'S LAMP,

COMBINING LIGHT, SAFETY, AND ECONOMY.

The PATENTEE respectfully solicits the attention and patronage of COAL PROPRIETORS to the above LAMP—the LIGHT from which will be found FOUR-FOLD that of the Davy Lamp—the SAFETY SUPERIOR, and the COST IN OIL not ONE-HALF the expense of candles, even when burning free from draft; whilst, from the light being shielded from the wind, a current of air, inadmissable where naked candles are used, may be passed through the galleries of a mine without inconvenience.

Wentworth, near Rotherham. BEN. BIRAM.

IMPROVED LIFTING JACKS,

58

MANUFACTURED BY

W. AND J. GALLOWAY,

PATENT RIVET WORKS,

MANCHESTER.

IMPROVED RATCHET JACK.

HALEY'S PATENT LIFTING JACK.

The attention of parties who employ

Lifting Jacks,

is respectfully requested to the superiority of those annexed, over those hitherto in use.

CURE of SEVEN YEARS COUGH by Dr. LOCOCK'S PULMONIC WAFERS.

—From the Rev. G. Dawson, Primitive Methodist Minister, Peel, Isle of Man, Jan. 29, 1851:—"My wife having been afflicted with a severe cough for 7 years past, during the last spring was brought so low, that her life was despaired of, when a friend recommended her to try Dr. Locock's Pulmonic Wafers. She did so, and the benefit she derived from them was truly amazing. She was, after taking a few boxes, again able to attend to her domestic duties. I think it would be a great blessing to the afflicted in our island were they advertised here, as they appear not to be known. —GEORGE DAWSON.—Dr. Locock's Wafers have a pleasant taste, price 1s. 1½d., 2s. 9d., and 11s. per box. Sold by all medicine vendors.—Also, Dr. Locock's Female Wafers, the best medicine for females. Full directions are given with every box.

All Pills under similar names are counterfeits.

59

WHEAL LANGFORD MINE,—Near CALLINGTON, CORNWALL.

—At a GENERAL MEETING of the shareholders, held at Gregory's Hotel, 29, Cheapside, on Thursday, the 6th day of February, 1851, STEPHEN BROAD, Esq., in the chair,

It was resolved,—

That the accounts now examined and passed, showing a balance of £744 4s. 9d. in favour of the Company, up to the 31st Dec., 1850, be received.

That the report of Arthur Dean, Esq., civil and mining engineer, with plans and sections of Wheal Langford and Wheal Baring United Mines, were presented to the meeting by that gentleman, who explained fully the nature of the lodes, and his reasons for believing that rich deposits, both of silver and copper, would be found at the various points referred to in the plans—a unanimous vote of thanks was given to him for his very able report, and for the plain and comprehensive way in which he explained the same.

That Mr. S. Broad and Mr. F. Orme do continue Trustees of the Company, and that Mr. Dare be added to the number.

That the following gentlemen be re-elected members of the Committee of Management—viz.: Mr. Gregory, Mr. Duthoit, Mr. Moody, and Mr. Robert Serjeant; and that Mr. Richard Hallett, Jun., Mr. James Crowley, and the Rev. Joseph France, be added to their number, and that five form a quorum.

That the thanks of the shareholders be given to the Committee, for their attention to the interest of the Company.

That the Committee be empowered to give orders to sink a shaft and purchase an engine, of sufficient power to carry on the operations of the mines with spirit.

That in future the mine be called the "Wheal Langford and Wheal Baring United Mines," and that new certificates be issued, signed by not less than three of the Committee, and countersigned by the Secretary.

That Capt. Knott's salary in future be £6 6s. per month, instead of £5.

That the thanks of the meeting be given to Mr. Robert Serjeant, and Mr. Vivian, the purser, for their attention to the interest of the Company at the mine.

That a vote of thanks be given to the Secretary, for the efficient manner in which he has discharged his duties.

That the reports and statement of the accounts be printed, and sent to each shareholder, and also to the *Mining Journal*.

60 (Signed) STEPHEN BROAD, Chairman.

CARN VALLEY TIN AND COPPER MINE, ST. DENNIS, CORNWALL.—In 5120 shares, of £1 each.

TO BE WORKED ON THE COST-BOOK SYSTEM.

MANAGING COMMITTEE.

HENRY M. HAVILAND, Esq., Ivy House, Uxbridge
GEORGE PEARCE POCOCK, Esq., 10, Norfolk-street, Strand
WALTER CHARLES URQUHART, Esq., Gray's Inn
HENRY E. DRAYSON, Esq., Palace-yard, Westminster
STEPHEN BROAD, Esq., Rye Hill, Peckham

Bankers—Messrs. Williams, Deacon, and Co., London.
Solicitors—Messrs. Tucker and Sons.
Secretary and Purser—Mr. R. C. Manuel.

61

TEMPORARY OFFICES,—42, FISH-STREET-HILL, LONDON,

This mine is held on lease from the Earl of Falmouth for 21 years, from 1850. The dues are 1-14th for all minerals raised without the aid of steam machinery, but with, 1-18th. The set is about three-quarters of a mile on the course of the lodes, and from north to south about half a mile. Several lodes are already discovered, and the sett presents the most unusual advantages, being intersected by a caunter lode which traverses the whole tract of land, and intersects the several lodes.

A shaft has been sunk about 36 feet, at which depth one of the tin lodes was intersected varying in size from 1 to 2 feet wide, and from whence a considerable quantity of tin ore was raised of the first quality, realizing from £57 10s. to £65 per ton, but the water came in, and consequently the works are suspended.

To the south of the sett there is a rich copper lode 4 ft. thick, containing a solid branch of copper ore 6 inches wide, and the remainder impregnated with copper ore throughout.

The line of rail which crosses the country from New Quay passes on the western boundary of the sett, by which means all materials may be brought on the mine, and the ores conveyed to the shipping port, being a distance of about seven miles, which may be considered a great advantage to the company.

It is proposed to erect a steam-engine of about 30-inch cylinder, which will prove the mine to a considerable depth, and lay open the lodes, which will give immediate and immense profits.

Arrangements have been made with the present proprietors to dispose of their interest in shares at 20s. each, to form a working capital for the development of the mine, reserving to themselves £1120 for the discovery, work done, procuring the lease, and other expenses, with the option of taking one-half of the amount in shares at the price named.

The plans and reports may be inspected, samples of the ores seen, and prospectuses containing full particulars, with forms of applications for shares, may be obtained on application to the secretary, Mr. Manuel, at the office of the company, 42, Fish-street-hill; or to Messrs. Smith and Son, stock and share brokers, 7, Bank-chambers, Lothbury.

APPLEDORE SILVER-LEAD AND COPPER MINE, ST. IVE, CORNWALL.

62

Divided into 1024 shares.—Dues One-Fifteenth.
CONDUCTED ON THE COST-BOOK PRINCIPLE.

COMMITTEE OF MANAGEMENT.

GEORGE RICH, Esq., Pimlico.
GEORGE BATTERS, Esq., St. John's Wharf, Westminster.
THOMAS TORKINGTON, Esq., Gravesend.

BANKERS—Devon and Cornwall Bank, Liskeard; Barclay, Bevan, and Co., London.
PURSER—Edward Anson Crouch, Liskeard, Purser of West Caradon.
MANAGING AGENT—Robert Dunstan, Captain of West Caradon.

This sett is granted by Wm. D. Horndon, Esq., at 1-15th dues, and extends about a square mile, and near to the most productive silver-lead mines in the county—namely, Wheal Mary Ann, Trelawny, Venton, Trehane, and other rich and dividend-paying mines. There are five parallel lodes running through this sett, and two copper lodes—the former are from 3 to 12 feet through, composed of rich gossan, mundic, candied spar, flookan, peach, prian, with spots of lead, in a light blue killas, being most congenial for silver-lead, and every indication to warrant a rich deposit of ore in depth. The metalliferous district of this sett, together with the relative position which it bears to the rich and productive silver-lead mines in this neighbourhood, is too well-known to require further description than given in the following

REPORTS:

Jan. 18.—In accordance with your request, we yesterday carefully inspected one portion of this sett, which we found to be very extensive. We saw one strong, regular, and well-defined lode, running north and south; its width is about 2½ feet, its underlie east, and although it does not produce so much gossan, where opened, as is seen in some lodes, the stratum of ground in which it is located is very congenial for silver-lead, and the situation is extremely favourable, as the lode by its underlie falls into a large concave valley—the stratum of which is a soft clay-slate, in which experience has taught us our most productive and profitable lead mines exist. We ought not to omit to state, that we were told by others, that there are two other lodes discovered in this sett, but the heavy rains which fell at the time we were there, and the late hour of the day, prevented our examining the whole sett. So, to conclude, we beg to state, that taking the sett in all its connections, first, a large strong north and south lode, which is situate in a stratum of ground very congenial to the metal sought; and after looking at what we deem the leading features of this sett, we do not hesitate to state that but few new concerns present more of what is considered promising indications than is to be seen at Appledore, and as such we have no hesitation in stating that it holds out considerable promise of making a large and good mine. The sett is extensive, and the neigbourhood, Callington, one of mining celebrity.

JAMES OSBORN, Wheal Venton.
HENRY HODGE, Wheal Mary Anne

Jan. 27.—Having recently inspected, or rather surveyed, this sett, I beg to hand the following report thereon:—This sett, which is very extensive, is situate in the parish of St. Ive; it lies on the western side of the River Lynher, and directly south of Bicton Wood Consols, the north and south lodes in this sett, Appledore, being a continuation of the eastern lodes in Bicton, where they have been traced to some considerable distance, and present very fine appearances in this sett, and also, where opened on the backs, show themselves to be large and well-defined, being composed of gossan and quartz, and located in a beautiful soft killas, which is in every respect congenial to the produce of lead. There is also an east and west lode, the appearances of which are well worthy of attention, and from the backs lead is said to have been taken. Judging from the whole of the features of this sett, as far as a surface survey can admit of, I deem it well worthy of an effectual trial, but I should recommend, as preparatory to any permanent operations, that the lodes be opened on the backs throughout the sett, in order that their character and relative position may be more clearly ascertained, and the best spot selected for commencing effectual operations.

ROBERT DUNSTAN, West Caradon Mine.

Jan 30.—In conformity with my promise to you, I yesterday inspected that portion of this sett which I had not before seen, and am happy to inform you that I saw another large north and south lode, which produces fine gossan, is situated in a stratum of soft clay-slate, and it is said intersected by a caunter lode, near the spot where I saw the principal opening; but as the pits said to contain the caunter were not cleared up, we, of course, could not state what is in them. But I can, without hesitation, say the north and south lode is one of considerable promise, being of a good size and appearance, quite in a lead district, having the Callington lead mines on one side, and the Menheniot ones on the other, and this being situated about midway between both, gives it a favourable position, and the appearance of the lodes and the general strata being the same as in those mines, I see no reason why the same causes will not produce the same effects. Fully aware that we cannot divest mining of the uncertainty which attaches to it, and equally certain that experience has taught us many things that serve for guides (though not infallible) in forming our judgments and directing our operations, and as far as I can see in it, appearances are strongly indicative of a productive mine at Appledore.

JAMES OSBORN, Wheal Venton, Liskeard.

The testimony of the above experienced and well-known agents, and now managing two of the most productive and best dividend-paying mines in this locality, is sufficient guarantee for the favourable results likely to ensue.

Application for the remaining shares (two-thirds having been already apportioned) to be made to Thomas Fuller and Co., Threadneedle-street, London, where every information may be had, and plans and specimens seen.

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63 UNDER BRITISH AND FOREIGN LETTERS PATENT.

HUTCHISONISED STONE, BRICKS, &c.—TO LAND PROPRIETORS, ENGINEERS, ARCHITECTS, &c.—The SOFTEST STONE, CHALK, GYPSUM, CLAY, SAND, &c., INDURATED AS HARD AS GRANITE—will never vegetate nor disintegrate, being impervious to atmospheric action, &c.

For all Foundations, external and internal Buildings, Docks and Sea Walls, Sewerage, Paving, Decorative and Monumental Works, the HUTCHISONISED MATERIALS are unequalled for durability and low cost.—*(See Testimonials and Prices.)*

PASTEBOARD, SOFT WOOD, and other ABSORBENT MATERIALS, rendered WATERPROOF, and imperishable from weather, vermin, &c.

LICENSES GRANTED ON LIBERAL TERMS.

Apply to WM. HUTCHISON, Hutchisonised Stone Works, &c., Tunbridge Wells, Kent.

THE PATENT OFFICE AND DESIGNS REGISTRY,

No. 210, *STRAND, LONDON.*

INVENTORS will receive (gratis), on application, the OFFICIAL CIRCULAR OF INFORMATION, detailing the eligible course for PROTECTION of INVENTIONS and DESIGNS, with Reduced Scale of Fees.

Messrs. F. W. CAMPIN and CO. offer their services, and the benefit of many years experience, in SECURING PATENTS and REGISTRATIONS OF DESIGNS, with due egard to VALIDITY, economy, and dispatch—assisted by scientific men of repute.

Also, in MECHANICAL and ENGINEERING DRAWINGS, whether connected with Patents, Railways, or otherwise, by a staff of first-rate draftsmen.

Application personally, or by letter, to F. W. Campin and Co., No. 210, Strand (corner of Essex-street).

64

WHEAL ENYS TIN MINE, WENDRON, CORNWALL.

—Held under lease for 21 years, nearly 20 of which are unexpired, at 1-18th dues; to be reduced to 1-20th as soon as an engine shall be erected.

Divided in 1070 shares, and conducted strictly on the "Cost-book System," under the superintendence of a Committee.

Mr. JOHN TRETHOWAN, Little Falmouth, *Purser.*
Messrs. TWEEDY & CO., Falmouth, *Bankers.*

65

EARLY APPLICATIONS, for not less than Five Shares, may be addressed to Mr. Trethowan, the purser, at Little Falmouth; to Messrs. T. Leeds and Son, St. Anne's, Manchester; Mr. W. Fenton, 5, White Hart-court, Lombard-street, London; Mr. J. Davies, 38, Tower-buildings, Liverpool; T. W. Flint and Co., brokers, Hull; or to Mr. Williams, accountant and mine broker, Green-bank-terrace, Falmouth.

AGENTS' REPORTS.

The following are EXTRACTS from the REPORTS of MINING AGENTS, who have inspected the mine:—

Capt. RICHARD EUSTICE, of Stray Park Mine, says,—"Wheal Enys is in granite, with a beautiful elvan course running through the sett, near Trevarno and Buck's Lodes." * * * "There is no tract of land, to my knowledge, in the county so abundant in mineral veins, lying together in such a convenient position for a well-arranged system of mining, and so situated as to render a small steam-power sufficient for the proper drainage of the whole." * * * "£1000 will be sufficient to provide steam-power and pitwork for draining the mine; and for a few months, a further outlay of from £70 to £80 per month for labour and materials (without taking into consideration the tin you must raise), immediately on getting under the old workings, or the burrows, which will pay for dressing, if you bring the water to surface; a new mine will be opened, which I have no doubt, will quickly repay the outlay, and ultimately realise great wealth." * * * "There cannot be a doubt, that Wheal Enys, properly worked, will prove one of the most profitable mines in the county."

Capts. MARTIN and BARNETT say,—"When the last party abandoned the mine, about 40 years ago, from want of machinery, they left in the bottom level, on Trevarno lode, a rich bottom of tin, 40 fathoms in length; very rich courses of tin were also left from the same cause on Buck's lode." * * * "The water from the greater part of the lodes can be drained by a 30-inch cylinder engine, which can be erected for about £600. Clearing and securing shafts and levels, with necessary erections, will require about £1400 more; so that a capital of about £2000 will make this one of the most profitable and lasting mines in the county." * * * "By drawing the water to surface you will be enabled to dress the burrows, and return from them sufficient tin to pay the monthly cost of working the engine."

Capt. MICHAEL W. MARTYN says,—"Had I not inspected Wheal Enys Mine, I would not have believed it could have presented such prospects of success. Several of the lodes, particularly Trevarno and Bucks, have been completely worked away, at and above the adit level, which is about 22 fathoms from surface, and the two above-named a few fms. deeper, by means of a water-wheel (I consider this to be beyond a speculation); and if you wish to work your mine profitably, lose no more time, put up immediately a small steam-engine, and I sincerely believe your wishes will be speedily accomplished. I find you have returned from arches left by former parties nearly £400 worth of tin—and that, in connection with the immense excavations, as well as the burrows which will, I believe, give a handsome profit to the adventurers, if they bring the water to surface, must convince every person acquainted with mining, that tin to a very great amount must have been returned from the backs of the lodes; and that you have only to go deeper to obtain it in much larger quantities. From the Bissoe tin bill of the 21st inst., I perceived you obtained at the rate of £54 per ton for your tin, which is sufficient proof of its quality, as well as what you may fairly expect at greater depth."

NORTH TAMAR CONSOLS SILVER-LEAD & COPPER MINING COMPANY,—BEERFERRIS, DEVON.

In 2000 shares, of 10s. each.

66

CONDUCTED ON THE COST-BOOK SYSTEM.

Purser—Mr. W. A. PALMER, Tavistock. | *Agent*—Capt. JOHN HAMBLY, Calstock.
Bankers—Devon and Cornwall Banking Company, Tavistock.

This is a SILVER-LEAD and COPPER MINE, situated in the parish of BEERFERRIS in the county of DEVON, and adjoins the River Tamar, by which a great saving will be made in land carriage, &c. The sett is more than a mile in extent north and south on the run of the lodes, and about three-quarters of a mile east and west, and principally in the lands of the Earl of Mount Edgcumbe. It is surrounded on the north-west by Tavy Consols, Virtuous Lady, Wheal Bedford, Gunnis Lake, Heigngton Down, Wheal Arthur, Wheal Calstock, and Drake Walls Tin and Copper Mines, and adjoins on the south and is parallel with the great Tamar Silver-Lead Mines, East and South Tamar, and other silver-lead mines.

There are several lodes in the sett: four very promising ones have been discovered, only one of which has yet been worked on, from which rich silver-lead ore has been raised, which sold for £35 per ton, and contained from 100 to 150 ounces of silver to the ton.—A small steam-engine has been recommended as necessary for the effectual working of the mine, and that no delay may occur whilst carrying on the works at any season of the year.

There is now on the mine a good whim and tackle, dressing-floors, hutches, strakes, material house, &c., preparatory to dressing.

The mine was suspended about four years since, when good returns of silver-lead were being made, and it is believed that only a small outlay will be required to bring the mine into a profitable working and pay dividends to the adventurers.

The sett is held under a lease for 21 years, from 24th June, 1850, at 1-15th dues.

The present proprietors will be entitled to receive 5s. per share out of the first instalment, to cover the expenses of the lease, materials on the mine, and sundry works already done, &c.

The affairs of the Company will be managed by a committee chosen from the principal shareholders.

This undertaking offers no ordinary attraction as a valuable investment to capitalists and others, being situate in the best mining neighbourhood in the county of Devon, and adjoining the celebrated Tamar Silver-Lead Mines, from which thousands of tons of silver-lead have been raised, and whose Agents' Reports on it will be found below.

Application for shares to be made immediately to the purser; or to Messrs. Josiah Sims and Co., mining agents, Tavistock, Devon.

AGENTS' REPORTS.

Tamar Silver-Lead Mines, Sept. 13.—Agreeable to your wishes, I beg to hand you my report of the Tuckermarsh Mine, now called the North Tamar Consols Mine. The adit level is driven south about 28 fathoms, in which the lode is 18 inches wide, spotted with ore. The 10 fathom level is driven north from the shaft about 9 fathoms, and the lode in the end is 2 feet wide, impregnated with ore throughout. In the same level south the lode is about 2½ feet wide, carrying a small leader of ore of good quality. Judging from the little that I have seen of the mine, should it be carried out with spirit, I have every reason to believe that it will make a good mine. JAMES SPRAGUE.

Tamar Silver-Lead Mines, Feb. 6.—According to your request, I send your a report of Philley Wood Mine, now called North Tamar Consols. I was the underground agent of the mine during the whole time it was worked, and, therefore, had an opportunity of observing the changes of the lode as we progressed towards the hill in the adit and other levels. The lode is running parallel with, and is in the adjoining ground of the Tamar Silver-Lead Mines. The adit level is driven altogether about 60 fathoms from the mouth of the same, and in the course of driving we went through some small bunches of lead. The lode, I think, averages from 2 to 4 feet wide, and the lode in the present end is from 3 to 4 feet, and the leader part about 18 inches, producing lead throughout. About 20 fathoms behind the present end there is a shaft sunk from the surface to the adit about 13 fathoms; the same shaft is sunk 10 fathoms below the adit, and the lode cut at that level shows a very favourable appearance, with lead that will pay for working. We drove the 10 fathom level north about 12 fathoms, in which we had an orey lode, and in the present end the lode is about 2½ feet wide; going south the end is driven about 15 fathoms; the lode in this end is about 2 feet wide, carrying a good leader of lead, and the other part of the lode saving work, and is a very promising end; we also put men and stoped away some of the backs from this level, which was termed a pitch, from which some good work was produced; we also sunk a few feet in the bottom of this level, and found a large orey lode going down 3 ft. 6 inches wide, and although our workings were very contracted in this level, we sampled and sold small parcels of ore twice, which was of good quality for silver, and made £35 per ton. From what I have seen of this lode, I consider it worthy of a steam engine or water-wheel to prove it down, and I believe if the mine is fairly worked it will make a good and lasting mine, as the appearance of the lode on the backs is quite equal, if not superior, to anything I have seen in this great mine which has produced such large quantities of ore, and is still working profitably more than 200 fathoms below the surface. When your appropriate the shares, I shall be glad if you will put down my name for 20 shares, by which you will oblige, THOMAS SPRAGUE.

Tavistock, Jan. 27.—I have this day inspected the North Tamar Consols Mine, and find that it is situate in the parish of Beerferris, in a good locality, being surrounded on all sides by very promising and productive mines—namely, on the north by Wheal Russell, Okel Tor, and Gunnis Lake Mines; on the north-east by Tavy Consols, and Wheal Bedford; on the south by the Tamar Consols, east and south Tamar Silver-Lead Mines, and on the west by Calstock and Heigngton Down Consols, and Drake Walls, &c. The sett extends about 1¼ mile north and south, and three-quarters of a mile east and west. There are several lodes, four of which have been discovered; two being east and west, and two north and south: one of these has been worked on about 50 fathoms south, and produced rich silver-lead ore. I was unable to see the present workings in consequence of the water being in the mine, but for a small sum it could soon be forked out by the horse-whim, when the present end that was said to be so productive of lead, could at once be seen. There is sufficient water-power to carry out the operations for some time for dressing ores, working a crusher, stamps, &c., and also for pumping water out of the mine, but I cannot say whether there is sufficient water throughout the year to do the whole of these works, and I should, therefore, recommend that a small steam-engine should be erected, which would enable the adventurers to work the mine more effectually throughout the year. In conclusion, looking at the appearances and indications that the North Tamar Consols Mine gives, and to its being surrounded on all sides by such promising mines of this district, I consider it to be a very excellent speculation, and one that I can confidently recommend to any one; and I should advise that the mine be prosecuted immediately with great vigour; and, with good management, I have no doubt but that at a small outlay the mine will prove very productive, and become vey profitable to the adventurers, and a dividend-paying mine. JOSIAH SIMS, Mining Engineer.

Calstock, July 20.—According to your wish, I give you the following particulars of Philley Wood or Tuckermarsh Mine, and now called North Tamar Consols Mine. I worked in the mine from the commencement. The adit end is driven from the valley to the shaft about 45 fathoms, and the same level is driven south of the shaft about 20 fathoms. In this shallow level they drove through a fine lode with lead in several places, and there is a fine lode in the end. The shaft was sunk about 10 fathoms under the adit level, which showed a decided improvement below the adit, producing good bunches of lead. The 10 fathom level is driven north from the shaft about 9 or 10 fathoms, and south about 5 fathoms; in the back of this level was a tribute pitch, from which some ore was raised, but I cannot say the quantity; but the tributers earned good wages at 10s. in the £1 for the lead, having nothing for the silver; in the bottom of this (10 fathom) level was a sink made, in which is a fine lode from 5 to 6 feet wide, and rich for lead. The lode will average, I think, from 2 to 6 feet wide throughout the mine, and appears to be much richer in the 10 fathom level than in the adit. The lead ore sold from this mine was found to be rich for silver, and sold for more than £30 per ton; and, from the general appearance of the mine, I have no doubt but when worked it will make a first-rate adventure. There was nothing but a horse-whim to keep the water, stuff, &c. The water is very easy, and with a small engine the mine would soon be made to pay dividends. It is about four years since the mine was working, and it was then well spoken of by all that knew it, and was considered to be a first-rate speculation.—E. HALL, Working Miner (who worked in North Tamar Consols when the mine was stopped).

PRICES OF MINING SHARES.

It being difficult to obtain a correct knowledge of all the mines in our list, we trust that agents, and others interested, will assist us, by forwarding any additions, or corrections, with which they may be acquainted—our object being to present it as accurate as possible. We have also added a column to note the actual business transacted; but which, without the constant assistance of brokers and agents, cannot become so complete as we could wish. The desirability of such a record is generally admitted, and we invite the co-operation of all parties concerned, in rendering it perfect.

Shares.		Paid.	Last Price.	Transactions.
	DEVON DISTRICT.			
2080	Aylesborough (tin), Sheepstor	2	2	
4000	Bedford United (copper), Tavistock	2¼	6¾ 7 7¼	7 7¼ 7½
1280	Birch Tor and Vitifer (tin), Dartmoor	10½	4	
—	Bottle Hill (copper) Plympton	1	1½ 1¾	
1024	Borringdon Park (silver-lead), Plympton	½	3½ 4½ 5½	4½ 4¾ 5
4060	Devon and Courtenay Consols (copper)	1½	¾	¾ 1½
1024	Devon Great Consols (copper), Tavistock	1	280	270 285 90
768	Devon Great Tincroft, North Bovey	½	6	
250	East Birch Tor (tin), North Bovey	3	3	
2048	East Crowndale (tin), Tavistock	7½	2	3
4000	East Gunnis Lake Junction (copper)	½	1½ 1	1½
9000	East Tamar Consols (silver-lead)	1½	1½	
2048	East Wheal George (cop.), Walkhampton	1	10	10
512	East Wheal Josiah (copper), Tavistock	1½	¾	1
4000	East Wheal Russell (copper), Tavistock	½	5 6 6½	4½ 4¾ 5¾ 6
1024	Exmoor Eliza (copper), South Molton	2½	5	
1500	Hennock (silver-lead), Hennock	2½	3½	2½ 3½
1024	Kingsett and Bedford (lead and copper)	3¾	2½	
1742	Lamherooe Wheal Maria (copper & tin)	11½	10	11
3000	Nap Down (silver-lead), Combmartin	1	1	1½
1024	New East Crowndale (copper and tin)	2	2	
1024	North Wh. Robert (copper), Walkhampton	2	2 2½	2 2½
1000	Peter Tavy and Mary Tavy (copper)	2½	8	8 10
512	Plymouth Wheal Yeoland (tin), Plymouth	6½	6	
2048	Runnaford Coombe (tin)	2¾	3½ 4	
256	South Friendship Wh. Ann (copper & tin)	30	28 30	
256	South Molton (lead)	12½	12½	8
1024	South Plain Wood (copper), Ashburton	3¾	7	
9000	South Tamar (silver-lead), Beer Ferris	1	2½ 2¾	2½ 2¾
9600	Tamar Consols (silver-lead), Beeralston	4	6	5½ 5¾ 6
687	Tavy Consols (copper), near Tavistock	8	3	
1024	United Mines (copper and tin), Tavistock	10	10	
1024	West Downs (copper and tin), Whitchurch	2	1½	
1024	West Wheal Friendship (copper)	3	2½	3
4000	West Wheal Russell	½	½ ¾	¾ ½
1070	Wheal Adams (lead), Christow, Exeter	13½	16	
1024	Wheal Carpenter (tin & cop.) S. Sydenham	1	1½ 1¾	
1024	Wheal Crebor (copper), Tavistock	2½	3½ 4½ 4¾ 5	4¾ 5½ 6
1024	Wheal Emily (antimony and lead)	3	6	
1024	Wheal Fortescue (copper), Tavistock	4½	3 3½ 5	
764	Wheal Franco (copper), near Tavistock	13½	13	13 15
126	Wheal Friendship (copper)	120	120	
1024	Wheal Hamlyn, near Oakhampton	½	1	1
2048	Wheal Harris (lead), near Tavistock	¾	1	1½
2000	Wheal Langmaid (lead)	½	1½ 1½	1½
1024	Wheal Mary Ann (copper), Bridestow	—	1½	
5000	Wheal Providence, South Sydenham	½	2½ 4	2½ 4
1024	Wheal Russell (copper), Tavistock	4	6½	5¾ 6
	EAST CORNWALL DISTRICT.			
	FOWEY, CALSTOCK, LISKEARD, ST. AUSTELL.			
1024	Appledore (silver-lead and cop.) St. Ives	1½	1½	
3650	Bawden (silver-lead)	½	½ ¾	
256	Berriow (copper), Liskeard	2½	5	
1024	Bodmin Consols (lead), Wadebridge	4	4	
5000	Bodmin Moor Consols (tin and copper)	1	4¾	
—	Bodmin Wheal Mary (copper)	5	6½	
812	Butterdon (lead), Menheniott	2½	8½	10½
1000	Callington (lead and copper), Callington	28	8½ 9½	6½ 7½
4000	Calstock United (copper)	5	5	
1168	Caradon Great Cons. (cop.), Linkinhorne	7	3	
1536	Caradon Vale (copper and lead), St. Ive	1¾	1¾	
3000	Carthew Consols (cop. & lead), Wadebridge	4	7	
256	Chyprase, St. Enoder, Cornwall	3	25 30	
500	Comblawn (lead), Callington	8	—	
1000	Coombe Valley Quarry (slate), St. Ginnis	5	2	
211	Craddock Moor (copper), St. Cleer	28½	7	
2560	Drake Walls (tin and copper), Calstock	6½	3	
—	Duke of Cornwall	3	3	
1024	East Polgooth (tin)	6	7½	
1024	East Sharp Tor (copper)	5	8	
1000	East Trescoll (tin), Lanivet, near Bodmin	1	2	2 2½
256	East Wheal Rashleigh, Lonreath	—	10	
494	Fowey Consols (copper), Tywardreath	40	30	
256	Gonamena (copper), St. Cleer	46	15	
1024	Great Sheba Consols (tin and copper)	4	13	
5000	Great Wheal Martha (cop.), Stoke Clims.	—	1	
3072	Great Wheal Mitchell Cons. (cop.), Lanivet	3	5	
512	Gt. Wh. Rough Tor Con. (cop.), Camelford	29	20	
6000	Growa Slate Company, Camelford	5	5	
1024	Hawkmoor (cop.), Calstock, Gunnis Lake	5	17	
6000	Heignston Down Con. (copper), Calstock	2½	4	
512	Herodsfoot (lead), near Liskeard	27	12 12½	
1000	Holmbush (lead and copper), Callington	24	23 24	22½ 23½
6000	Marke Valley (copper), Caradon	10	3½	
256	Mineral Court (tin), near St. Austell	22½	50	
1024	Moditonham & Marrabro' (copper & lead)	1¾	2½ 3	
256	North Fowey Consols	—	25	
1024	Okel Tor (lead)	1¾	4½	
128	Par Consols (copper), St. Blazey	55¾	650	
406	Penhauger	1	6	6
2048	Pentire Glaze (silver-lead), St. Minver	5	8	
200	Phœnix (copper and tin), Linkinghorne	—	240	
5000	Roche Rock (tin), Roche, near St. Austell	1	1	
5000	Rocks and Treverbyn (tin), St. Austell	4½	5	5 5½
—	Silver Valley & Wh. Brothers (cop. & tin)	1	1½	
256	South Caradon (copper), St. Cleer	30	115	
256	South Trelawny (lead), near Liskeard	31	7½	
256	South Wheal Josiah (copper), Calstock	2	4	
999	St. Minver Consols (silver-lead)	1	6	
128	Tokenbury (copper), St. Ive, Liskeard	8½	8	
2048	Trebell Consols (tin and copper), Llanivet	1½	1½	
512	Treburget United (lead), St. Teath	1	—	
600	Tregardock	1	5	
256	Tregorden (silver-lead) Wadebridge	10	7	
256	Trehane (silver-lead), Menheniot	1½	18 15	12
512	Trethevy (copper), St. Cleer	7	7	
512	Treville (lead), Lewanick	2¾	6 7	8 9
5000	Warleggan Consols (copper)	¾	¾ 1	¾ 1½
256	West Caradon (copper), Liskeard	20	110 115	106 110
512	West Fowey Con. (tin & cop.), St. Blazey	40	60	
1024	West Par Consols (copper), St. Blazey	10	11	
1024	West Phœnix, Linkinghorne	3	4	
2500	West Polgooth (tin), St. Ewe & St. Mewan	5	3	
1228	Wheal Arthur (copper), Calstock	1	2	
232½	Wheal Calstock (copper), Calstock	9	9	
3000	Wheal Dora (tin and copper), St. Cleer	3	3½ 4	3½ 4
182	Wheal Ennis (lead), St. Erme	12	20	
1000	Wheal-an-Grose (tin), St. Columb Major	5	5 6	
256	Wheal Kingston (copper and silver-lead)	½	1	
6000	Wheal Langford (copper and silver-lead)	½	2½	3
1024	Wheal May (silver-lead and copper)	1¾	1½	1¾
512	Wheal Mary Ann (lead), Menheniot	5	65 6½ 7½ 8	65 66½ 67½
3000	Wheal Penhale (lead and copper)	2¾	5½	
512	Wheal Sophia (silver-lead), Lezant	7	7	
512	Wheal Spry (copper and lead) St. Columb	¾	1	
—	Wheal Tom (tin & copper), Stoke Clims.	5	7	6½ 7 7½
1024	Wheal Tremar (copper), St. Cleer	1	1	
1100	Wheal Trescoll (tin), Lanivet, Bodmin	8	6	
520	Wheal Trelawny (silver-lead), Liskeard.	3¾	56 57 58	55½ 56½
256	Wheal Tremaine (copper), St. Ervan	11	2½	
1024	Wheal Venton (silver-lead), Liskeard	3¾	8½ 9	8½ 9
910	Wheal Vincent (tin), Alternum	7½	6½	
128	Wheal Violet (tin and cop.), St. Stephens	5	5½	
184	Wheal Vyvyan (cop. & tin), Constantine	60	60	
	ST. AGNES, NEWLYN, AND PERRANZABULOE.			
107	Budnick Consols (tin), Perranzabuloe	52½	10 11½	9
256	East Tywarnhayle (copper), St. Agnes	5	8½ 11	10½ 12
512	East Wheal Leisure (copper)	8	18 20 21	
128	East Wheal Rose (silver-lead), Newlyn	50	575	
262	North Wheal Leisure, Perranzabuloe	1½	1½	
1160	Perran St. George (copper and tin)	21½	45	
2560	Garras (silver-lead), near Truro	5½	4½	
500	Tywarnhayle (cop.), Illogan & St. Agnes.	70	44	
3000	West Shepherd (silver-lead and copper)	2½	2	
2048	West Wheal Rose (lead), Newlyn	2½	3	
300	Wheal Arthur (lead), near East Wh. Rose	17	49	
100	Wheal Friendly (tin), St. Agnes	70	65	
4000	Wheal Golden (lead), Peranzabuloe	2	5 6	
216	Wheal Henry (copper), Kea, near Truro	25	8 12	
128	Wheal Vlow, Perranzabuloe	3	5	
	GWENNAP DISTRICT.			
1056	Carvannall (copper), Gwennap	2¾	5½	
128	Comfort (copper), Gwennap	65	70 75	
96	Great Consols (copper), Gwennap	1000	250	
252	Lanarth Consols (copper), Gwennap	10	10½	
96	Tresavean (copper), Gwennap	20	225	
120	Trethellan (copper), Gwennap	5	21 22	
120	Treviskey and Barrier (copper)	130	250 270	265
200	United Mines (copper), Gwennap	300	110	
120	West Trethellan (copper), Gwennap	15	20	
3725	West Wheal Jewel (tin and copper)	12	2	
512	Wheal Trefusis (copper), Gwennap	6¾	18 20	17
	REDRUTH DISTRICT.			
1024	East Buller (copper), near Redruth	2	6½ 6¾	7½
128	East Carn Brea (copper), Redruth	4	3	
256	East Seton and Wheal Maude, Redruth	4	4½	
256	East Tolgus (copper), Redruth	4	19 20½ 21	19
256	Grambler and St. Aubyn (copper)	80	50	48
1024	North Buller (copper), Redruth	4	14 15	
1200	North Wh. Buller, or Gt. South Tolgus	5	7	
256	North Trefusis (tin and copper), Redruth	1	2 3	¾
256	North Tolgus (copper), Redruth	7	14	16½
256	South Tolgus (copper), Redruth	16	152	150
5000	Treleigh Consols (copper), Redruth	6	2½ 3	
128	West Buller (copper), Redruth	10	850	900
500	Wheal Daniell (copper), Chacewater	10	10	
182	Wheal Elizabeth (copper), Redruth	19	52½	25
990	Wheal Mary (copper), Redruth	14½	7½	
128	Wheal Plenty (copper), Redruth	19	38 39	
126	Wheal Union (copper), Redruth	40	45 50	
512	Wheal Selena (copper), Redruth	1	1½	
1024	Wheal Uny (tin and copper)	2	5½	
	ILLOGAN DISTRICT.			
1000	Carn Brea (copper and tin), Illogan	15	120 125	120
2510	Cook's Kitchen (copper and tin), Illogan	15½	9 10	10
128	East Pool (tin and copper), Pool, Illogan	24½	170 175	160
94	East Wheal Crofty (copper), Illogan	125	150	
256	East Wheal Frances (copper), Illogan	2½	3¾	3½ 3¾
6000	North Wheal Basset (copper and tin)	—	25	15
100	North Pool (copper and tin), Pool	45	420	
—	Polgeare (copper and tin)	1	4 4¾	5 5½
2000	South Carn Brea (copper), Illogan	10	—	6½
1100	South Dolcoath (copper), Illogan	6	6	
256	South Wheal Basset (copper), Illogan	10½	365	365
248	South Wheal Frances (copper), Illogan	75¾	605	
6000	Tincroft (copper and tin), near Pool	7	9½ 10	8½
940	West Tolgus (copper), Illogan	13½	6	7½ 8½
512	West Wheal Frances (copper), Illogan	7	25 26	25 27
500	West Wheal Towan (copper), Illogan	15	12½	11
1000	Wheal Agar (copper), Illogan	6	5½ 5¾	
	CAMBORNE DISTRICT.			
1000	Camborne Consols (copper), Camborne	7	7¾	
256	Condurrow (copper and tin), Camborne	20	114	112½
1000	Copper Bottom (copper), Crowan	7	9	
256	Crane and Bejawsa (copper), Camborne	14	25	25
180	Dolcoath (copper and tin), Camborne	252	18 20	
1026	Gustavus Mines (copper), Camborne	6½	5½ 5½	
320	Nansegollan (tin and copper), Camborne	1	3	
140	North Roskear (copper), Camborne	10	160	
1026	Pendarves Consols (copper), Camborne	3½	6½	
1000	Pendarves and St. Aubyn (tin and copper)	5	6½ 7	
1000	Stray Park and Camborne Vean (copper)	15	18 19	17
1200	Tolcarne (tin and copper), Camborne	8	5	
200	West Seton (copper), Camborne	65	170	
2560	Wheal Harriet (copper), Camborne	1	2½ 2¾	1½
198	Wheal Seton (tin and copper), Camborne	107	240	
267	Wheal Tryphena (tin and copper)	40	38	
	WEST CORNWALL DISTRICT.			
5120	Alfred Consols (copper), Hayle	3	15 15½ 16½	16½
1624	Balleswidden (tin), St. Just	9	10½	
940	Balnoon Consols (tin), Uny Lelant	—	4½ 6	
40	Bolowall and Nanpean (tin), St. Just	—	16	
128	Boscean (tin), St. Just	10	20	
60	Bosorn (tin), St. Just	5	6	
100	Botallack (tin and copper), St. Just	182	150	200 220
1000	Carbona (tin and copper), Crowan	5	10	
1024	East Balleswidden (tin), Sancreed	1½	2	
256	East Godolphin (copper), Crowan	17½	13	
1000	East Wheal Reeth	¾	1½	
1024	East Wheal Margaret (tin and copper)	½	1½ 1½	
2500	Georgia Consols (tin), St. Ive's	2½	7 7½	
1024	Great Wheal Alfred, St. Erth and Phillack	2	7	7½
512	Great Wheal Baddern (tin and silver-lead)	20	85	
512	Hawke's Point (copper), Uny Lelant	7	5	
256	Lelant Consols (tin), Uny Lelant	53	21	
160	Levant (copper and tin), St. Just	—	170	
1000	Lewis (tin and copper), St. Erth	17	18½	16
1024	Mill Pool (tin and copper), St. Hilary	1	5½	
2000	North Levant (tin and copper), St. Just	5	3	
512	North Wheal Vor (tin), Breage, Helston	—	5	
1024	Penzance Consols (tin), Sancreed	1½	3 3½	2½ 3½
1024	Praed Consols, Towednack	1	1	
560	Providence Mines (tin), Uny Lelant	20¾	30	
1024	Sidney Godolphin (copper), Breage	2½	2¾	3½
300	South Speed (copper and tin), Uny Lelant	15	30	
1024	Spearne Consols (tin), St. Just	2½	10	7½
1024	St. Aubyn and Grylls (copper and tin)	2½	5½	5 5½
94	St. Ives Consols (tin), St. Ive's	80	80	
280	Spearne Moor (copper), St. Just	30	40	
1024	Trannack and Bosence, St. Erth	1	5 5½ 6 7	5½
1024	Trannack United Mines (tin and copper)	1½	4½	
600	Trelyon Consols (tin), St. Ive's	3½	6½	6½ 7
100	Trumpet Consols (tin), near Helston	95	80 90	
1024	Wellington (copper & tin), Perranlithnoe	6½	15¾	15½ 16
1024	West Alfred Consols	5¾	12 12½	11½
1024	West Ding-Dong (tin)	¾	2 2½	2½
512	West Providence (tin), St. Erth	10	67½ 70	
1024	West Wheal Treasury (copper), Gwinear	8	6½ 7	7 7½
1024	West Wheal Virgin (tin), Sancreed	1	1¾	2¼
256	Wheal Albert (copper)	10	28 29	
3072	Wheal Augusta (tin), St. Just	½	2½	2½
120	Wheal Bal (tin), St. Just	10	14	19
256	Wheal Carpenter (tin), Gwinear	1½	5 7½	7½
1000	Wheal Guskis (tin and copper), St. Hillary	½	1½	
112	Wheal Margaret (tin), Uny Lelant	79	165	
1024	Wheal Neptune (copper), Perranuthnoe	1	2	
1080	Wheal Oak, near Helston	1½	1½	
120	Wheal Reeth (tin), Uny Lelant	41	175	185
256	Wheal Squire (copper), St. Erth	5	5	
1000	Wheal Susan, Breage and Crowan	1	2½	
1024	Wheal Tremayne (tin and cop.), Gwinear	9½	20½	21
1024	Wheal Trelusback, Stythians	5	5½ 6	
	WALES.			
1248	Allt-y-Crib (silver-lead), Talybont	5	10	
1500	Bishopstone (silver-lead), Glamorganshire	2½	10	
8000	Blaenavon (iron)	50	12½	
10000	British Iron, New, regis. (iron)	12	8	
—	Ditto ditto, scrip	10	10	
2000	Bronfloyd (lead)	—	4	
2400	Bryn-Arian (lead), Cardiganshire	2	2½ 2¾	
1000	Bryntail, Llanidloes, Montgomeryshire	2½	9	12 14
2000	Bwlch Consols (silver-lead), Cardiganshire	4	4½	
1000	Cae-Gynon (silver-lead), Cardiganshire	½	1½	
20000	Cameron's Steam Coal (coal), Swansea	10	2 2½	
200	Cefn Bruno (lead), Cardiganshire	6	55	55
900	Court Grange (silver-lead), Cardiganshire	10	12	
1600	Craig-y-Mwyn (lead), Llanrhiadr, Mont.	8½	10½	
1000	Cwm Daren	1	3	
1000	Cwm Erfin (lead), Cardiganshire	6	6 6½	
2000	Cwm Sebon	—	4	
128	Cwmystwith (lead), Cardiganshire	60	105	
1000	Daren (silver-lead), Cardiganshire	2	8½ 9 10	
3000	Dyfngwm (lead)	10	—	11
150	East Daren (lead), Cardiganshire	17	65	
1280	Esgair Llee Llanfihangel-y-Croythin	4½	5 5¾	5½
1024	Freidd Llwydd Mines (lead)	1½	3½	
1000	Gelli-rei-vin (silver-lead), Cardiganshire	1	5	
100	Goginan (lead), Cardiganshire	40	200	
100	Lisburne (lead), Cardiganshire	75	700	
1000	Llwynmalees (lead), Cardiganshire	9½	8 9	
3600	Llynvi Iron (iron)	50	50	
5000	Merllyn (lead), Flint	2½	4½ 4¾ 5½	4 4½ 5
1024	Montgomery (lead and copper)	7	11½	
200	Nanteos (lead), Cardiganshire	34	30	
3000	Nant-y-Car (copper), near Rhayader	—	5 5½	
4934	Pennant and Craigwen (lead)	3	3	
1000	Pen-y-bank and Erglodd (lead)	4	6½	
2500	Rhoswydol and Bacheiddon (lead)	10½	—	
10000	Rhymney Iron (iron), Rhymney	50	12	
10000	Ditto New	7	3	
2000	South Wales Mining Company (lead)	1	1	
4000	Tyn-y-Worglod (slate), near Carnarvon	4	4 5	
1000	Tyllwyd (lead), Cardiganshire	2	2½	
2048	West Goginan (silver-lead), Cardiganshire	1¾	1½ 2	1½ 1¾
1020	West Nantymwyn	—	2	
	IRELAND.			
1000	Dhurode (copper)	2	5	
4000	General Mining Co. for Ireland (copper)	1½	5¾	
10000	Hibernian (copper)	12½	1¾	
20000	Mining Co. of Ireland (copper, &c.)	7	4½	
6200	Wicklow (copper), Wicklow	5	19	
5000	Wicklow (copper and sulphur), Wicklow	3	3½ 3½	
	SCOTLAND.			
5000	Black Craig (lead), Kirkcudbrightshire	5	5	
787	Kirkcudbrightshire (lead), Kirkcud.	8½	5	
	MISCELLANEOUS.			
32	Black Burn, Alston, Cumberland	15	100	
32	Helvellin Mining Company, Westmoreland	10	20	
7100	Derwent (silver-lead), Durham	10	3	
1900	Keswick (lead), Portinscale, near Keswick	11	2 3	
5000	Mendip Hills (lead), near Bristol	3¾	1½	2½ 2¾
512	Old Brimpts (tin), Lydford, near Ashburton	½	12	
	FOREIGN MINES.	Paid.	Last Price.	
5000	Alten Mining Company (copper), Norway	14½	3	
12000	Annotto Bay Mining Association (copper), Jamaica	1	5½ 6	
20000	Australian (copper), South Australia	4	2½	
6000	Barossa Range (copper), South Australia	1¾	¾	
10000	Brazilian Imperial (gold), Brazil	23	5½ 6	
12000	Cobre Copper Company (copper), Cuba	40	34½ 35	
10000	Copiapo Mining Company (copper), Chili	14	5½ 5¾	
20000	General Mining Association (iron & coal), Nova Scotia	20	14	
5000	Kinzigthal Mining Association (silver), Germany	2	¾	
12000	Liguanea and General Mining Company of Jamaica	1	3¾	
5000	Linares (lead), Spain	3	2½	
500	Ditto Preference	3	3½	
4500	Ditto New	1	1	
20000	Mexican and South American (silver), Mexico	8	1 1½	
5000	National Brazilian (gold), Brazil	30	2	
104000	North British Australasian (copper), S. A. & New Zea.	1	¼	
7000	Royal Santiago (copper), Cuba	10	6	
11000	St. John del Rey (gold), Brazil	15	13¾	
43174	United Mexican (silver), Mexico	Av. 28½	5¾	
10000	Worthing (copper), Adelaide, South Australia	3	3	

NAP DOWN CONSOLS SILVER-LEAD MINING COMPANY,—COMBMARTIN, NORTH DEVON.

OFFICES—No. 80, THREADNEEDLE-STREET, LONDON.

In 6000 shares, of £1 each.

CONDUCTED ON THE COST-BOOK SYSTEM.

BANKERS—Messrs. Masterman and Co., Lombard-street, London; and the National Provincial Bank of England, Barnstaple.

SECRETARY—Mr. James Lane, No. 37, Threadneedle-street.

Applications for shares to be made to Mr. Thos. Allsop, stock and sharebroker, No. 1, Royal Exchange-buildings, London; Mr. James Lane, secretary, at the offices of the Company; and William Thorne, Esq., Barnstaple, Devon; or of the following brokers: —J. Davies, 38, Tower-buildings, Liverpool; E. Speakman, Exchange-chambers, Manchester; C. Beardshaw, Leeds; J. Ironside, Sheffield; Messrs. T. W. Flint and Co., Hull; G. Trickett, Post-office Chambers, Plymouth—to whom all communications may be addressed, and of whom prospectuses and plans may be obtained.

Prospectuses may also be had at the office of the *Mining Journal*, 26, Fleet-street.

NO FURTHER APPLICATIONS for SHARES can be RECEIVED after MONDAY, the 17th inst., when the Allotment will be proceeded with.

In consequence of the numerous applications for shares, and in deference to the general feeling in favour of raising all the estimated capital in the first instance, rather than by successive calls, it has been determined to issue 6000 shares, of £1 each, fully paid, in place of 3000 shares, of £2 each, as originally intended.

GREAT POLGOOTH MINE, ST. AUSTELL, CORNWALL.

Divided into 11,000 shares.

CONDUCTED ON THE COST-BOOK SYSTEM.

Dues at present 1-48th.

This important and valuable Mining Property has returned in the last four years, to 31st December, 1850, £87,000 worth of tin, besides copper, at a considerable profit; she is now in full work, with about 700 hands employed, and has complete machinery and plant (which, with permanent useful works, have cost upwards of £44,000). Her present tin sales are about £1800 per month, and the future prospects accredit this mine as a proved and legitimate investment of high character.

Prospectuses to be had of Messrs. Johnson, Longden, and Co., stock and sharebrokers, of 22, Tokenhouse-yard, London, to whom applications for the remaining shares (a large portion being already taken by influential parties) may be made.

Deposit £2 per share.—Every information may be obtained of the above firm; also of Mr. George Thomas, Winchester-house, Old Broad-street; and Messrs. Coode, Brown, and Co., solicitors, 18, King's Arms-yard, London.—London, Feb. 13, 1851.

WEST BEAM TIN AND COPPER MINE, in the parish of ASHBURTON, DEVONSHIRE.

ON THE COST-BOOK SYSTEM.

In 7000 shares, of £1 each, all paid up.—No further call.

Term: 21 years.—Dues: 1-15th.

This is a very extensive sett, the value of which has been proved by a former company, and containing many tin lodes and one large copper lode. There being all the requisite buildings and machinery on the mine for immediate operations, productive works can be commenced without delay, and tin sent to the market in a few months. The Company is to be managed by a committee of five of the principal shareholders, and the money paid in their names into the Union Bank of London.

For full particulars, prospectuses, and shares, application may be made to Mr. Thomas Allsop, No. 1, Royal Exchange-buildings, London; or to the Purser and Secretary, Mr. James Nicholson, solicitor, No. 90, New Bond-street, London; or to Messrs. Caunter, Palk, and Creagh, Ashburton, Devonshire.

CHEMICAL, MINERALOGICAL, AND AGRICULTURAL SCHOOL,—38, *KENNINGTON-LANE, LONDON.*

The SCIENTIFIC DEPARTMENT under the direction of J. C. NESBIT, F.C.S., F.G.S. one of the Principals.

INSTRUCTIONS are given in AGRICULTURAL CHEMISTRY, and the making of ARTIFICIAL MANURES.—Mineral Analysis taught in all its branches. Analyses performed as usual, on moderate terms.

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STIRLING'S PATENTS FOR IMPROVEMENTS IN IRON.—1. TOUGHENED CAST-IRON, which is double the strength of ordinary cast-iron, and only 10s. to 12s. per ton extra.

2. ANTI-LAMINATING IRON, for RAILS and TIRES, &c., at an extra price of from 7s. 6d. to 10s. per ton. Also IMPROVEMENTS in the MAKING of WROUGHT-IRON—saving one process to the manufacturer.

The following Iron Manufacturers are duly LICENSED to MAKE the IRON:—

Messrs. BAIRDS'	Gartsherrie, Glasgow.
The CLYDE IRON COMPANY	ditto ditto
The FIRTH IRON COMPANY	ditto ditto
The HERSLEY COMPANY	Tipton, Staffordshire.
Messrs. LLOYDS, FOSTER, & CO.	Wednesbury.
Mr. JOHN WILSON	Dundyvan, Glasgow.

AGENTS.

Messrs. GARDEN and MACANDREW, 34, Dowgate-hill, London.

Messrs. W. & J. H. JOHNSON, 166, Buchanan-street, Glasgow, and 20, St. Andrew's-square, Edinburgh.

Further particulars may be obtained on application to the agents; or to Mr. JEE, civil engineer, No. 6, John-street, Adelphi, London.

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of the month.

BOMBAY.—Passengers for Bombay can proceed by this company's steamers of the 29th of the month, to Malta, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA—On the 20th and 29th of every month. CONSTANTINOPLE—On the 29th of the month. ALEXANDRIA—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th 17th, and 27th of the month.

For plans of the vessels, rates of passage-money, and to secure passages and ship cargo, apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Bate's West Hartley 13—Buddle's West Hartley 13 6—Chester Main 12 6—Davison's West Hartley 13 6—Howard's West Hartley Netherton 13 6—North Percy Hartly 13—Original Windsor Pontop 12—Ord's Main 12 9 to 13—South Peareth 11 6—Tanfield Moor 12 9—Tanfield Moor Bute's 12 6—Townley 12 6—Walker Primrose 11 6—West Hartley 13 6—Wylam 13 9.—Wall's-End Brown 12 3—Cresswell 13—Gosforth 13 3—Gibson 12 9—Harton 13 3—Hedley 13—Lawson 12 6—Northumberland 12 9—Original Gibson 12 6—Walker 12 6—Wharncliffe 13 3—Braddyll 14 3—Hetton 15—Haswell 15 3—Lambton 14 6—Richmund 14—Russell's Hetton 14 6—Stewart's 15 3—Caradoc 14—Cassop 14 3—Heugh Hall 14—Kelloe 14 3—South Kelloe 41—Whitworth 12—Adelaide Tees 14 6—Cleveland Tees 12 6—St. Helen's Tees 12 6—Tees 15—Cowpen Hartley 13 6—Gors Goch Stone 21—Hartley 13—Sydney's Hartley 13 6—Ships, 274; sold, 112.

WEDNESDAY.—Bate's West Hartley 13—Buddle's West Hartley 13 6—Chester Main 12 9—Holywell 14 6—North Percy Hartley 13—New Tanfield 13 3—Ord's Main 13—Pelton Main 12 6—South Peareth 11 6—Tanfield Moor 13—Tanfield Moor Butes 12 6—Wylam 13 6—Wall's-End Brown 12 6—Bewick and Co. 13 3—Gibson 12 6—Hedley 13 3—Lawson 12 6—Riddell 13—Walker 12 9—Bell 14 3—Belmont 14 3—Braddyll 14 9—Hetton 15 3—Haswell 15 6—Lambton 15—Richmond 14—Russell's Hetton 14 9—Caradoc 14 3—Denison 13 9—Heugh Hall 14—Kelloe 14 6—South Kelloe 14—Whitworth 12 3—Adelaide Tees 14 3—Backhouse 14—Brown's Deanery 13 3—South Durham 13—Tees 15 3—Cowpen Hartley 14—Derwentwater Hartley 14—Sidney's Hartley 14.—Ships at market, 177; sold, 62.

FRIDAY.—Chester Main 13—Holywell 15—Ord's Main 13—Pelton Main 12 6—South Peareth 11 6—Tanfield Moor 13 3—Tanfield Moor Bute's 12 9—West Hartley 14 3—Wylam 13 6—Wall's-End Acorn Close 13 9—Brown 12 6—Gosforth 13 9—Gibson 12 6 Heaton 14—Hilda 13 3—Lawson 12 9—Northumberland 13—Original Gibson 12 6—Riddell 13 3—Walker 13—Eden Main 14—Bell 14 6—Belmont 14 9—Hetton 15 9—Haswell 16—Lambton 15 6—Stewart's 16—Denison 14—Howden 14 6—Heugh Hall 14 6—Kelloe 15—South Hartlepool 15 3—South Kelloe 14 6—West Kelloe 14—Whitworth 12 3—Adelaide Tees 15—Seymour Tees 13 6—Tees 15 9—Cowpen Hartley 14 3—Gors Goch Stone 21—Sydney's Hartley 14 3—Whitworth Coke 19.—Ships at market, 140; sold, 67.

Delivery of coals, &c., in the port of London during the month of January:—

	Ships.	Tons.
Newcastle	272	90,459
Sunderland	105	31,308
Seaham	52	3,180
Stockton, Middlesbro', &c.	182	50,468
Blyth	24	5,431
Scotch	3	686
Welsh	9	3,276
Yorkshire, &c.	22	1,556
Small coal	2	170
Cinders	8	1,386
Total	679	197,910
Imported in Jan., 1850—Coal, culm, and cinders		255,613

Inland coals brought by canal, in the month of Dec., 1850, upon which the City's and other dues were received .... *Tons* 2855½

Inland coals brought by railway, the City's and other dues upon which were paid into the Chamber in the month of January, 1850 12193

Comparative Statement of 1850 *and* 1851.

		Ships	Tons
Imported from January 1 to January 31, 1850	*Ships*	857	255,613 tons.
Imported from January 1 to January 31, 1851	„	679	197,920 „
Decrease in the present year	„	178	57,693 „

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